

IVICA ICO BUKVIC, D.M.A.

540/231-6139
Blacksburg, VA 24061-0240
E-mail: ico@bukvic.net
ico@vt.edu
Web: ico.bukvic.net

Virginia Tech
Department of Music - 0240
Director, DISIS Interactive Sound & Intermedia Studio
Director, L2Ork *Linux Laptop Orchestra*
Assistant Co-Director, CCTAD
Art & Art History, CS, CHCI (by courtesy)

CURRICULUM VITAE

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OBJECTIVE

- Pursuit of an interdisciplinary career in Academia with **artistic** (composer, intermedia sculptor, performer), **research** (use of newfound creative technologies in applied scenarios), and **administrative** vectors.
- Research focus on collaborative synergistic exploration of applied and artistic potential of innovative creative technologies in a pursuit of a quantifiable betterment of quality of life with particular focus on K12 education.
- Artistic focus on *ubiquitous interactivity*, exploring synergies among aural and visual, acoustic and electronic, interactive works and installations.

EDUCATION

D.M.A. in Composition, University of Cincinnati, College-Conservatory of Music, 2005.

- Cognates in *Computer Music & Programming* (advisor Mara Helmuth), and *Music Theory* (advisor Robert Zierolf).
- *Composition Studies* with: Mara Helmuth, Joel Hoffman, Michael Fiday, and Fredric Rzewski.
- *Individual Lessons* with: Paul Lansky, Brad Garton.
- *Computer Music Studies* with: Mara Helmuth.
- *Theory Studies* with: Robert Zierolf, Randall Wheaton, and Steven Cahn.

M.M. in Composition, University of Cincinnati, College-Conservatory of Music, 2001.

- *Composition Studies* with: Mara Helmuth, Henry Gwiazda, and Joel Hoffman.
- *Individual Lessons* with: Diane Thome.
- *Computer Music Studies* with: Mara Helmuth.
- *Theory Studies* with: Frank Samarotto, and Robert Zierolf.
- Additional studies in computer programming (College of Engineering) and organ performance (Leon Couch III).

B.M. in Composition (Summa Cum Laude), University of Cincinnati, College-Conservatory of Music, 1998.

- *Composition Studies* with: Darrel Handel, Joel Hoffman, Ricardo Zohn-Muldoon, and Mara Helmuth.
- *Individual Lessons* with: Paul Lansky.
- *Computer Music Studies* with: Mara Helmuth.
- *Theory Studies* with: Frank Samarotto, Joel Hoffman, and Robert Zierolf.
- Additional studies in orchestration (Samuel Adler), piano performance (David Warf), and orchestral conducting (Terence Milligan).

Gymnasium degree in Music Theory, Music Academy "Vatroslav Lisinski" (Zagreb, Croatia), 1992.

- Dissertation in choral conducting (advisor prof. Golčić).
- Additional studies in piano performance.

AWARDS AND RECOGNITION

- Teacher of the Week, Center for Instructional Development and Educational Research. October 17-23, 2011.
- Virginia Tech Scholar of the week. August 29-September 4, 2011. [peer nomination]
- February 18, 2011: 1st place in the first international laptop orchestra commission competition for the revamped version of *Half-Life* composition with added choreography for *Linux Laptop Orchestra* (L2Ork) and narrator organized by Electric Monster Laptop Ensemble at Montana State University. [peer review, international]
- February 4, 2011: winner of 2010-11 Virginia Tech College of Liberal Arts & Human Sciences Excellence in Research and Creative Scholarship award. [regional]
- April 3, 2010: VT *Linux Laptop Orchestra* (L2Ork) featured on the front cover of the international *Linux Journal*. The magazine also includes eight-page coverage of the ensemble and an interview. [international]
 - Phillips, D. (2010). State of the Art: Linux Audio 2008. *Linux Journal*. Champlain, NY, HME Publishing Limited: 193 50-57.
- March 5, 2010: recipient of the Virginia Tech XCaliber award for “for exceptional, high caliber contributions to technology-enriched teaching and learning.” [regional]
- November 5, 2009: invited to give talk at the TEDxMidAtlantic conference with the theme being “the power of stories” (<http://www.tedxmidatlantic.com>), Baltimore, MD.
 - <http://tedxmidatlantic.com/live/#IvoBukvic>
 - <http://www.storiography.com/journal/tedxmidatlantic/>
 - <http://www.flickr.com/photos/xiana-aretta/sets/72157622628797969/?page=3>
 - <http://stellargirl.typepad.com/stellargirl/2009/11/inspired-by-tedxmidatlantic.html>
- July 9, 2009: *with delicate risk* audio-visual work (in collaboration with visual artists Dane Webster) was recognized as part of the 2009 Best Animated Short category award at the *Frozen Film Festival*, San Francisco, CA (<http://www.frozenfilmfestival.com/pages/lineup09.php>).
- April 21, 2009: Recipient of the Creative Achievement Award from VT CAUS for the *Revo:oveR* interactive multimedia installation exhibit. [peer review]
- Fall 2008 - present: Appointed Assistant Co-Director of Collaborative for Creative Technologies in the Arts & Design.
- Fall 2007 - present: Courtesy appointments in Art & Art History and Computer Science.
- Spring, 2006: *All Your Sprache Are Belong to Strauss* voted winner of the 20th anniversary Electroclips composition contest sponsored by the *Society for Electro-Acoustic Music in the United States* (SEAMUS). [peer vote, national]
- 2006 - present: First Artist Member of the Virginia Tech's Center for Human Computer Interaction (CHCI) by invitation.

- 2006 - present: Member of the Virginia Tech's Digital Arts Research Collaborative (DARC) by invitation.
- 2005 - present: Elected Director of the international Linux Audio Consortium.
- 2005 - present: ASCAP Plus annual award.
- 2004: Winner of the national graduate student award by the Croatia's National Ministry of Science, Education, and Sports.
- 2004 - present: Author of *Borealis*, the most downloaded and one of the most popular desktop sound themes on kde-look.org.
- 2003: *Upbeat* composition competition winner, Croatia, Hvar.
- 2003: *Presser Music Award* finalist, University of Cincinnati, College-Conservatory of Music.
- 2003: Author of the *RTMix* software featured by the Stanford and Eastman electroacoustic studios.
- 2002, 2003: Featured in Alumni publication *Communique*.
- 1999, 2000, 2003: Summer Graduate Scholarship, University of Cincinnati, College-Conservatory of Music.
- 1999-2003: Graduate Assistantship Award, University of Cincinnati, College-Conservatory of Music.
- 1999-2003: University Graduate Scholarship, University of Cincinnati.
- 1999: Nominated by the University of Cincinnati for *Who's Who Among Students in American Universities and Colleges*.
- 1998: *SAI* composer competition winner, Cincinnati, OH.
- 1993-1998: University Honor Scholarship, University of Cincinnati, College-Conservatory of Music.
- 1992: Second place in the National Pascal programming competition, Zagreb, Croatia.

GRANTS AND FUNDING

External

2010

- November 15: Secured fourth corporate sponsorship from Renoise software company in a form of a site license for the *Linux Laptop Orchestra* (valued at \$1,261) (100%).
- February-May: \$20,000 (100%) external grant through the *Boys & Girls Club* of Roanoke, VA (sponsored by *21st Century* and *Bank of America*) for the creation of the satellite laptop orchestra. Research team: **Ivica Ico Bukvic**, Eric Standley. Funds used for materials and sponsoring of three undergraduate student researchers.

2009

- Summer: \$149,648 (25%) awarded "EAGER: Drummer Game: A Massive-Interactive Socially-Enabled Strategy Game" proposal to the National Science Foundation. Research team: **Yong Cao**, Francis Quek, Ivica Bukvic, Dane Webster.
- Spring: est. \$2,000 (100%) Secured three corporate sponsorships for the *Linux Laptop Orchestra* (L2Ork), including seven laptops sponsored by MSI and eight soundcards sponsored by Sweetwater and additional hardware sponsored by Roland Inc. at cost. Research team: **Ivica Ico Bukvic**, Tom Martin.

2008

- Spring: \$14,200 (67%) *Sustainable, Intelligent Environment for Communal Interaction with Art and Culture* \$14,200 external grant. Pilot project sponsored by Wake Forest for the virtual rendition of the multimedia installation concept. Research Team: **Ivica Ico Bukvic**, Dane Webster, Scott Betz (Winston-Salem), Peter Marsh (Workplace Strategies), Dan Fogel (Wake Forest).

2007

- Fall: \$975,978 (Singapore currency) (Collaborator) *Networked Ensemble* proposal in collaboration with National University of Singapore and Stanford University. Research team: **Lonce Wyse** (National University of Singapore), Chee-Kong Ho, Kevin McGee, Damien Lock, Roger Zimmermann, Michael Gurevich, Ivica Bukvic.
- Summer: est. \$500,000 (15%) Arts Museum of Western Virginia grant as part of the Digital Art Research Collective (DARC) group to develop an interactive multimedia art installation for the grand opening of the new museum. Sponsored four graduate and two undergraduate assistantships. Credit and PI responsibility equally distributed among participants. Research Team: **Truman Capone**, Carol Burch-Brown, Ivica Ico Bukvic, Steve Harrison, Joy Rosenthal, Simone Paterson, Dane Webster.

Internal

2011

- January: \$5,000 (60%) Virginia Tech Institute for Distance and Distributed Learning grant for further development of an online distance learning system based on *Interactive Taiji* for teaching Taiji. Research team: **Ivica Ico Bukvic** and Matthew Komelski.

2010

- October 8: \$1,420 (100%) School of Performing Arts and Cinema (SOPAC) SOPAC Faculty Research Grant Award to offset costs of attending MUSICACOUSTICA 2010 international festival in Beijing, China. Grant team: **Ivica Ico Bukvic**, Jay Crone.
- September 28: Co-applicant for a \$1,500 (50%) Virginia Tech Foundation International Travel Supplemental Grant (ITSG) (\$1,000), and a College of Liberal Arts & Human Sciences (CLAHS) Dean's matching grant (\$500) to offset costs of attending MUSICACOUSTICA 2010 international festival in Beijing, China. Research team: Ivica Bukvic, **Jay Crone**.
- April: \$3,000 (100%) supplemental Education Enhancement Grant for the *Interactive Taiji* Education Enhancement grant (EECG) sponsored by the Virginia Tech Arts Initiative. Includes compensation for one graduate assistant (Matthew Komelski) and one undergraduate student researcher. Research team: **Ivica Ico Bukvic**, Isabel Bradburn.

2009

- Fall: \$5,000 (100%) Virginia Tech Institute for Distance and Distributed Learning grant for the development of an online distance learning system based on *Interactive Taiji* for teaching Taiji. Research team: **Ivica Ico Bukvic**, Isabel Bradburn, and Matthew Komelski.
- Fall: \$1,150 (100%) Virginia Tech School of Performing Arts and Cinema (SOPAC) grant for attending of the *TEDxMidAtlantic* (TEDx) conference and *Electronic Music Midwest* (EMM) festival.
- Fall: \$1,500 (100%) Virginia Tech Foundation International Travel Supplemental Grant (ITSG) (\$1,000), and a College of Liberal Arts & Human Sciences (CLAHS) Dean's matching grant (\$500) to offset costs of attending *International Computer Music Conference* in Montreal, Canada.
- Spring: \$20,000 (100%) Virginia Tech Institute for Society, Culture and Environment (ISCE) summer scholars grant for the establishing of the *Linux Laptop Orchestra* (L2Ork). Sponsored summer undergraduate student assistantships for a total of \$3,000. As part of the Research Experience for Undergraduates (REU) CS department program also engaged three undergraduate students, including one visiting student from Rochester. Research team: **Ivica Ico Bukvic**, Tom Martin.
- Spring: \$2,303 (100%) Virginia Tech Vice President of Information Technology grant (\$2,303) for the purchase of MSI Wind netbooks for the *Linux Laptop Orchestra* (L2Ork). Research team: **Ivica Ico Bukvic**, Tom Martin.
- Spring: \$930 (100%) Virginia Tech School of Performing Arts & Cinema (SOPAC) grant for sponsoring a visit of a Hungarian artist Tibor Varszegi for the spring DISIS event theatrical multimedia piece production in collaboration with Sue Ott Rowlands.

2008

- Summer: \$5,000 (60%) *Interactive Taiji* Education Enhancement grant (EECG) sponsored by the Virginia Tech Arts Initiative. Includes compensation for one graduate assistant (Matthew Komelski) and one undergraduate student researcher (Sabrina Killian). Research team: **Ivica Ico Bukvic**, Isabel Bradburn, Denis Gracanin, Kelly Parkes.
- Summer: \$10,000 (100%) *Sustainable, Intelligent Environment for Communal Interaction with Art and Culture* \$10,000 phase 2 grant by Virginia Tech Institute for Society, Culture, and Environment (ISCE) and Institute for Critical Technology and Applied Science (ICTAS), dealing with physical prototyping

of installation modules proposed in phase I. Research team: **Ivica Ico Bukvic**, Dan Fogel (Wake Forest).

2007

- Fall: \$400 (100%) Virginia Tech Center for Instructional Development and Educational Research (CIDER, formerly known as CEUT) Faculty Study Group (FSG) grant for an interdisciplinary collaboration study group involving College of Engineering, Architecture, and College of Liberal Arts & Human Sciences.
- Fall: \$500 (100%) Virginia Tech *Collaborative for Creative Technologies in the Arts and Design* (CCTAD) (\$250) and the Department of Music matching grant (\$250) for the Soundtrack and Effects Composition course field trip and recording session in Williamsburg, VA.
- Fall: \$1,000 (100%) Virginia Tech Foundation International Travel Supplemental Grant (ITSG) (\$500), and a College of Liberal Arts & Human Sciences (CLAHS) Dean's matching grant (\$500) to offset costs of attending International Computer Music Conference in Copenhagen, Sweden.
- Summer: \$20,000 (50%) Institute for Society, Culture and Environment (ISCE) summer scholars grant for the Science and Mathematics Inclusive Learning and Engagement (SMILE) study. Sponsored four undergraduate music assistantships for a total of \$1,000. Research team: **Carlos Evia**, Ivica Bukvic.
- Spring: \$2,400 (100%) Science and Mathematics Inclusive Learning and Engagement (SMILE) project collaborator on preliminary research. Secured two student assistantships.
- Spring: est. \$25,000 (50%) Virginia Tech Stakeholders Project. Generation of promotional materials and multimedia content for the purpose of raising \$29 million for the new Performing Arts Center. Sponsored two student undergraduate music assistantships. Research team: **Dane Webster**, Ivica Bukvic.
- Summer: \$20,000 (100%) Institute for Society, Culture and Environment (ISCE) summer scholars grant for the pilot study utilizing Aural Matrix Haptic Display Interface. Sponsored two summer undergraduate music student assistantships for a total of \$3,200. As part of the Research Experience for Undergraduates (REU) Computer Science (CS) department program also engaged a visiting undergraduate CS student from Oberlin College. Research team: **Ivica Ico Bukvic**, Denis Gracanin, Francis Quek.

2006

- Fall: \$1,200 (100%) Virginia Tech *Collaborative for Creative Technologies in the Arts and Design* (CCTAD) branding project sponsored by CCTAD/Art & Art History. Design of audio-visual branding materials for CCTAD including website and other promotional materials. Oversight of four CCTAD GTAs (<http://www.cctad.vt.edu>).
- Fall: \$500 (100%) Virginia Tech College of Liberal Arts & Human Sciences (CLAHS) grant writing workshop participant.
- Fall: \$12,500 (100%) Virginia Tech *Collaborative for Creative Technologies in the Arts and Design* (CCTAD) complementing grant for DISIS development.
- Fall: \$45,000 (25%) Virginia Tech *Collaborative for Creative Technologies in the Arts and Design* (CCTAD)/Digital Arts Research Collective (DARC) equipment grant proposal to the School of Visual Arts (\$45,000). Research team: **Truman Capone**, Ivica Ico Bukvic, Simone Paterson, Dane Webster.
- Fall: \$32,000 (100%) Virginia Tech College of Liberal Arts & Human Sciences (CLAHS) Dean equipment grant for Aural Matrix Haptic Display Interface exploratory research involving CHCI, Engineering, Assistive Technology and Music Technology. **Ivica Ico Bukvic**, Francis Quek, Tom Martin, William Holbach, Michael Dunston.
- Fall: \$300 (100%) Virginia Tech Center for Instructional Development and Educational Research (CIDER, formerly known as CEUT) Faculty Study Group (FSG) grant for an interdisciplinary collaboration study group involving College of Engineering, Architecture, College of Liberal Arts & Human Sciences (CLAHS), and Music.

- Spring: \$1,100 (100%) Virginia Tech Foundation International Travel Supplemental Grant (ITSG) (\$800), and a College of Liberal Arts & Human Sciences (CLAHS) Dean's matching grant (\$300) to offset costs of attending 4th international Linux Audio Conference in Karlsruhe, Germany.
- Spring: \$3,000 (100%) College of Liberal Arts & Human Sciences (CLAHS) Faculty Research Grant for producing commissioned multimedia interactive work.

PENDING

- \$5,000 proposal for the implementation of official online course for the Virginia Tech *Institute for Distance and Distributed Learning* using *Interactive Taiji* system.

TEACHING EXPERIENCE

Assistant Professor, Virginia Tech University (teaching evaluations ranging between 3.3 and 4.0, on a scale of 0=worst to 4=best), 2006 - present.

- Laptop Orchestra (MUS4124 and MUS3314) (new ensemble and lecture), Fall 2009 - present.
- Computer Music & Multimedia Design (MUS3065-6) (new 2-semester course), Fall 2006 - present.
- Soundtrack & Effects Composition (pilot course), Fall 2007.
- Revamped version of the Introduction to Music Technology (MUS2054), Spring 2006, Spring 2007, Spring 2008, Spring 2009, Spring 2010, Spring 2011.
- Composition, Spring 2006 - present.
- Independent Studies, Spring 2006 - present.
- Curriculum planning and development for the Music Technology program and the Cyberarts Initiative (a.k.a. Collaborative for Creative Technologies in Arts and Design or CCTAD).

Adjunct Faculty, University of Cincinnati, College-Conservatory of Music, 2005.

- Linux and Multimedia, Winter, Spring, 2005.

Visiting Professor, Oberlin College, Spring 2004.

- Composition, Spring 2004.
- Studio Skills for Composers (TECH 150), Spring 2004.
- Computer Music (TECH 201), Spring 2004.

Guest Lecturer, 1999 - present.

- Three lectures discussing own creative work at Texas A&M computer music classes, hosted by Dr. Morris, Texas A&M, College Station, Texas. November 2, 2011.
- Seminar at IRCAM discussing Linux Laptop Orchestra (L2Ork). May 30, 2011.
- Guest speaker (via Skype) covering pd-l2ork software at the Montreal Pd users meeting, May 7, 2011.
- *Bring back the STEAM* presentation at the Virginia Tech Center for Human-Computer Interaction seminar, April 22, 2011.
- Guest speaker at the CPATH NSF-funded workshop on Music and Computing, Wake-Forest University, Winston-Salem, VA, April 2, 2011.
- Guest speaker at the MUSICACOUSTICA 2010 international music festival in Beijing, China, discussing *Linux Laptop Orchestra* (L2Ork), October 28, 2010.
- Guest lecturer at Virginia Tech Roanoke center discussing *Linux Laptop Orchestra* (L2Ork), October 22, 2010.
- Visiting lecturer at the Louisiana State University discussing own creative work, April 26-27, 2010.
- Guest lecturer at *Biomusical Engineering* (UH-3004H) class taught by Virginia Tech Professor Emeritus Dr. Schneck discussing own research, February 17, 2010.
- Guest lecturer at the College-Conservatory of Music, University of Cincinnati discussing own creative work, including individual composition lessons with graduate computer music students, Cincinnati, OH, January 19, 2010.
- Invited to give talk at the TEDxMidAtlantic conference with the theme being "the power of stories" (<http://www.tedxmidatlantic.com>), Baltimore, MD, November 5, 2009.
- Virginia Tech Summer Band Camp lecturer in computer music for middle and high school band camp students, Blacksburg, VA, June 22-25 2009.
- VT Linux and Unix Users Group (VTLUUG) student organization lecture, Blacksburg, VA, March 2009.
- Lecture on the DREAM technology and artistic output presented as part of the University of Virginia Colloquium series, Charlottesville, VA, January 23, 2009.
- Taubman Museum of Art noon lecture series on my contributions to the Digital Arts Research Collective's Revo:oveR exhibit, Roanoke, VA, January 9, 2009.

- Virginia Tech Summer Band Camp lecturer in computer music for middle and high school band camp students, Blacksburg, VA, June 23-26 2008.
- *Building Communities Through the Arts* presenter (part of the *Virginia Tech Arts Initiative*) discussing use of music through ambient art to enhance architectural spaces, South Boston, VA (<http://www.svhed.org/arts/videohighlights.html>), June 4, 2008.
- Visiting lecturer at the Duke University, Spring 2008.
- Visiting lecturer at the Yong Siew Toh Conservatory of Music at the National University of Singapore, Winter 2008.
- VT Linux and Unix Users Group (VTLUUG) student organization lecture, Blacksburg, VA, November 2007.
- Visiting lecturer at the CPATH NSF-funded workshop (VT CS/CHCI), November 2007.
- Visiting lecturer at the UNC Greensboro Computer Music Festival, November 2007.
- Virginia Tech's "Art for Our Sake" panel member, November 2007.
- Visiting lecturer at the Virginia Tech Computer Science's Human-Computer Interaction Seminar, Spring 2007.
- Visiting lecturer at the Art & Art History Time-Based Media class, Winter 2007.
- Visiting lecturer for the "The Genius of the Place: Land and Identity in Contemporary Art" exhibition at the Arts Museum of Western Virginia, Roanoke, VA, November 2006.
- Visiting lecturer at the Computer Science's Cyberarts class, Fall 2006.
- Visiting lecturer at the *mama.mi2.hr* contemporary multimedia institute in Zagreb, Croatia, Summer 2006.
- Visiting lecturer at the University of Manchester, UK, Spring 2006.
- Visiting lecturer at the *Accent05* festival, Cincinnati, OH, 2005.
- Visiting lecturer at the *Workshops in Electronic and Computer Music*, Oberlin College, 2004.
- Visiting lecturer at the *Accent04* festival, Cincinnati, OH, 2004.
- Visiting lecturer at the *Uzmah* festival, Hvar, Croatia, 2003.

Graduate Teaching Assistant, University of Cincinnati, College-Conservatory of Music, 1999-2003.

- Linux and Multimedia (new course), 2002-2003.
- Computer Music Composition (substitute faculty), 2002-2003.
- Intro to Electronic Music, 2000-2003.
- Honors Music Theory and Analysis, 1999-2000.
- Composition, 1998-2003.

TEACHING QUALIFICATIONS

Electroacoustic Music and Multimedia Art

- Interactive computer music and new media art composition
- Reactive and Interactive systems
- Acoustics and Psychoacoustics
- Algorithmic content generation and shaping
- Digital signal processing and sound synthesis
- DSP software design & development
- DSP-oriented software and hardware
- Hyperinstrument/interface design and implementation
- Laptop Orchestra
- Recording techniques
- Multimedia studio design and management
- Electroacoustic music history

Composition

- Individual lessons and lectures in seminar and classroom settings
- Collaborative endeavors
- Experimental art
- Installations
- Orchestration & arrangement
- Scoring & notation

Intermedia

- Audio-visual collaborations
- Interactive multimedia art
- Collaboration through creative technologies
- *Libre* software and frameworks

Mentoring

- Multimodal interactivity, sound, and multimedia research
- Ensemble coaching

ADDITIONAL INTERESTS

Exploring collaborative potential between various art disciplines and bridging the gap between arts and sciences.

Use of acoustics, psychoacoustics, sonification, and innovative multimedia frameworks for the quantifiable improvement of the overall quality of life, including assistive technologies using large speaker arrays (see *DREAM* in the *Research* section).

Use of gaming paradigm for the design and development of interactive multimedia art installations and integration into intelligent spaces (see *Wake Forest* project in the *Research* section).

Pathways and standards for easier adoption and dissemination of interactive multimedia art, including circumvention and/or abatement of physical and logistical limitations of art that relies upon the contemporary technology.

Recontextualization of silence (see *The 0th Sound* in the *Presentations and Conference Exposure* section).

Audio engines for gaming and professional audio.

New interfaces and hyperinstruments for multimedia composition and performance (HCI, L2Ork).

Adaptation of performance spaces and practices to the needs of the 21st-century art.

Generation of formal density using the subtractive stochastic approach.

New approaches to music analysis, sound visualization, and sonification.

Music research in education, human health and development, and therapy.

PROFESSIONAL EXPERIENCE

Administrative Roles

Virginia Tech Dept. of Music, 2006 - present.

- Founder and director of the new Digital Interactive Sound and Intermedia Studio (DISIS) <http://disis.music.vt.edu>.
 - Funding and studio infrastructure, design and oversight of the development of the new space.
 - DISIS branding/website project, Fall 2007.
 - As of December 2009, the site receives on average 17,000 hits per month.
 - Introduced four new courses and revamped one existing course (for additional information please consult section on Teaching Experience).
 - Negotiated student technician part-time position, Fall 2007. Extended to two positions, Fall 2008.
 - Secured approx. 40 undergraduate assistantships for various projects since 2007.
 - Developed new curriculum including Computer Music & Multimedia Design and Soundtrack & Effects Composition.
 - Raised \$125,000.00 through proposals and grants for the infrastructure, Fall 2006, Spring 2007.
 - Organized YouTube's VTDISIS channel with supporting video materials <http://www.youtube.com/vtdisis>, 2008.
 - Introduced DISIS mailing lists, 2008:
 - http://disis.music.vt.edu/cgi-bin/mailman/listinfo/interactive_taiji
 - http://disis.music.vt.edu/cgi-bin/mailman/listinfo/interactive_taiji_grants
 - <http://disis.music.vt.edu/cgi-bin/mailman/listinfo/l2ork>
 - <http://disis.music.vt.edu/cgi-bin/mailman/listinfo/user>
- Founder and director of the *Linux Laptop Orchestra* (L2Ork) <http://l2ork.music.vt.edu>, Spring 2009-present.
 - Awarded \$20,000 VT [ISCE](#) pilot grant.
 - Conducted summer research project to design and develop software and hardware infrastructure.
 - Since its inception, over dozen undergraduate student researchers were sponsored as part of the secured funding.
 - Secured additional on-campus sponsorship in the amount of \$30,000 from a network of stakeholders, including:
 - [Arts Initiative](#)
 - [CCTA](#)
 - [CCTAD](#)
 - [CHCI](#)
 - [CIDER](#)
 - [CLAHS](#)
 - [CTEG](#)
 - [DISIS](#)
 - [ICTAS](#)
 - [IT](#)
 - [Music](#)
 - [SOE](#)
 - Secured external sponsorships in the amount of approx. \$4,000 from:
 - [MSI Computer](#)
 - [Renoise](#)
 - [Roland Corp.](#)
 - [Sweetwater](#)

- Summer 2008: Visual branding, design and implementation of new online resources for the *Linux Laptop Orchestra* (L2Ork) (<http://l2ork.music.vt.edu>).
- 2010-present: In an ongoing partnership with the Boys & Girls Club of Roanoke, VA through external grants (21st Century and Bank of America) introduced laptop orchestra curriculum to the inner city 5th graders as part of an afterschool program.
- 2010-present: Showcased L2Ork as part of various outreach activities, including Honor Band, Kids Tech University, VT Roanoke campus, and presentations at conferences (MUSICACOUSTICA 2010, SEAMUS 2011, NIME 2011).
- Winter 2010: Created Facebook site for the *Linux Laptop Orchestra* (L2Ork) (<http://www.facebook.com/group.php?gid=117918141555131>).
- February-March 2011: \$46,250 (100%) fund-raising for the maiden European tour. Added seven new on-campus Stakeholders for a total of 20 VT Stakeholders: Alumni relations, Institute for Distance and Distributed Learning, Office of Academic Assessment, Outreach & International Affairs, College of Architecture and Urban Studies, School of Performing Arts & Cinema, and Learning Technologies for a total of twenty Stakeholders. Raised \$26,500 through on-campus stakeholders and another \$19,750 through coordinated student initiatives.
- Assistant Co-Director of the Collaborative for Creative Technologies in the Arts and Design (CCTAD) <http://www.cctad.vt.edu>, Fall 2008 - present.
- Negotiating licensing deals with corporate vendors for departmental needs.
 - Sibelius, East West, 2006-present.
- Negotiating and coordinating repair/maintenance efforts for the music dept. equipment.
 - Yamaha Disklavier repair and restoration, 2006-2007.
- Heading the redesign and development of the new CCTAD branding logo, Fall 2006.
 - Oversight of CCTAD graduate assistants.
- Member of the CEUT interdisciplinary design group (by invitation), Fall 2006, Fall 2007.
- Seeking and organizing opportunities, events, and workshops including:
 - *Notion* scoring software on-campus demo and presentation, Spring 2006.
 - *Bradford Fenwick*, vice president for research presentation for CCTAD, Fall 2006.
 - *John Gerrard*, media artist presentation for CCTAD and Music Dept. faculty, Fall 2006.
 - *Sibelius* scoring software on-campus demo and workshop for students and faculty, Fall 2006.
 - Multimedia installation kiosk PI (CCTAD), Fall 2007.
 - Master class with percussionist Ron Coulter, April 2010.
 - Guest lectures by and master classes with Ron Coulter, Brad Garton, Peter Kirn, and Dave Phillips, April 9, 2011.
- Research Experience for Undergraduates (CS, CHCI) mentor, Summer 2007, 2008, 2009.
- Thesis Committee Member, Spring 2008 - present.
- Part of Virginia Tech College of Liberal Arts and Human Sciences delegation headed by Dean Ott Rowlands to Bangor University (Wales, UK) for the purpose of ratifying cooperation/collaboration/exchange agreement between the two institutions, Fall 2008.
- VT Linux and Unix Users Group (VTLUUG) student organization mentor, Fall 2007 – Spring 2009.
- Consulting in music technology and studio design.
 - University of Wisconsin-Eau Claire computer music studio redesign, Fall 2006.
 - Consultant to Jeffrey Conception, assisting in starting up a Linux-based laptop orchestra in Puerto Rico, Fall 2010.
 - Consultant to University of North Carolina Greensboro, assisting in starting up a laptop orchestra, Winter 2011.
- Committee Member:
 - Institute for Society, Culture and Environment (ISCE) visioning panel, 2007.
 - School of Performing Arts and Cinema working group, 2008.
 - Information Technology 2020 Visioning Task Force, 2010-11.

Linux Audio Consortium Director (elected), 2005 - present.

- Steering the organization in order to foster greater exposure of Linux as a viable audio software and hardware platform.
- Establishment of a foundation.
- Fund-raising initiatives.
- Creation of new programs that encourage participation and collaboration between multimedia artists, software developers, commercial vendors and media.
- Recruiting new members and seeking corporate/institutional endorsement.
- Spring 2006: in collaboration with Robin Gareus (IT specialist, Netherlands) moved all Linuxaudio.org resources to be hosted by Virginia Tech's Music Department, including mailing lists, website, sub-sites, and documentation. As part of the outreach, these community resources have resulted in over 2 Terabytes of traffic and an average of 700,000 visitors/month. Hosted sites include:
 - <http://linuxaudio.org>
 - <http://apps.linuxaudio.org>
 - <http://download.linuxaudio.org>
 - <http://docs.linuxaudio.org>
 - <http://git.linuxaudio.org>
 - <http://lad.linuxaudio.org>
 - <http://ladspavst.linuxaudio.org>
 - <http://lau.linuxaudio.org>
 - <http://lists.linuxaudio.org>
 - <http://lowlatency.linuxaudio.org>
 - <http://portal.linuxaudio.org>
 - <http://planet.linuxaudio.org>
 - <http://quicktoots.linuxaudio.org>
 - <http://stats.linuxaudio.org>
 - <http://wiki.linuxaudio.org>
- Mailing lists include:
 - <http://lists.linuxaudio.org/mailman/listinfo/consortium>
 - <http://lists.linuxaudio.org/mailman/listinfo/linux-audio-announce>
 - <http://lists.linuxaudio.org/mailman/listinfo/linux-audio-dev>
 - <http://lists.linuxaudio.org/mailman/listinfo/linux-audio-tuning>
 - <http://lists.linuxaudio.org/mailman/listinfo/linux-audio-user>
 - <http://lists.linuxaudio.org/mailman/listinfo/management>
 - <http://lists.linuxaudio.org/mailman/listinfo/open-video-user>
- Winter 2010: Negotiated for porting of the entire linuxaudio.org Web infrastructure to the CNS server blades free of charge to provide better stability, greater bandwidth, and redundant backup.

SEAMUS Board Member and Treasurer (elected), 2005 - 2011.

- Participating in board meetings, decision-making process, and day-to-day operations.
- Advising Board and the President on financial matters.
- Managing all monetary aspects of SEAMUS non-profit organization including membership and taxes.
- Reelected for the 2007-9 term.
- Reelected for the 2009-11 term.
- In part to encourage diversity on the SEAMUS Board, chose not to go up for reelection in 2011.

Conference submissions adjudicator (by invitation).

- Paper reviewer for the *Linux Audio Conference*, 2005-present.
- Paper reviewer for the *International Computer Music Conference*, 2007, 2010.
- Paper and performance submission reviewer for the *New Interfaces for Music Expression* conference, 2010, 2011.

- Multimedia performance reviewer for the *International Computer Music Conference*, 2011.
- Invited paper reviewer (by Professor Emeritus Danile Schneck) for the *Journal of Biomusical Engineering*, March, 2011.
- Paper reviewer for the *Pure Data Convention*, April 2011.

Member of the SEAMUS Conference Committee (by invitation), 2004-2006.

- Advising planning and coordinating yearly SEAMUS conferences.

Production manager for the *ICMC 2003* conference, 2003.

- Coordinating concert rehearsals, sound and stage setup.

Music Director at the St. Pius X Parish, KY, 2004-2005.

- Overseeing music program of the largest regional Parish, music planning, maintenance of the musical equipment and inventory, financial management and planning, hiring musicians and planning events for special occasions.
- Raised \$60,000.00 for the redesign of the sound system and reinvigoration of the music program.

Interactive and Experimental Music Festival chief technician, 2002.

- Managing electronic equipment, setup, PR, and production.

MusicX international summer music festival series administrative assistant, 1998-2005.

- Design and maintenance of the official website, design of PR material, organizing housing and transportation for the incoming guests, coordinating all technical needs for the concerts, manning the main mix for the pieces involving electronics, as well as assisting with the budget management and coordination of assistants.
- Worked with World renown artists including John Adams, Steve Reich, Kaija Saariaho, Milton Babbitt, George Crumb, Michael Torke, Brave Old World, 8th Black Bird, Louis Andriessen, Augusta Read Thomas, Chen Yi, Frederic Rzewski, etc.
- Oversaw sound setup for Steve Reich's *Tehillim*, Louis Andriessen's *M is for Mozart*, *Brave Old World*, Kaija Saariaho's *Amers* and *Six Japanese Gardens*.

Technical

College-Conservatory of Music, Center for Computer Music Studios (CCM)² administrator, 1999-2003.

- Purchasing, maintaining, and deploying IRIX, Mac OS 7-9, OS X, Linux OS machines, and various audio-oriented software, design and maintenance of the studio website, implementation of Web, mail, ftp, and nfs servers, as well as installation and upkeep of hardware, including 26-channel-capable Linux audio workstation.

College-Conservatory of Music computer systems assistant administrator, 1998.

- Maintaining Windows 3.1, 95, 98, NT, Mac OS 7-9, and IRIX computers.

Computer lab technician, 1997-1998.

- Maintaining 20+ Apple computers, teaching station, and a variety of classroom accessories.

Programming

New software development and contributions to various software projects, 1998 - present.

- Core developer of the pd-l2ork (an independent fork of Pure-Data maintained as part of the L2Ork project) with over 150 patches and improvements to the pd-extended platform since November 2010.
- Ported series of externals to Pure-Data platform, including John Gibson's *spectdelay~*.
- Designed series of new externals for Pure-Data platform, including *disis_netsend/netreceive*, *disis_wiimote*, *disis_phasor~*.

- Created a library of abstractions designed specifically for use in L2Ork.
- Contributor to *Pure-Data* and *Gem* software, including patches for support of MSI Wind hardware
- *disis.aka.wiiremote* Max/MSP external for interfacing with *Wii Fit* balance boards
- *Neverball* patch allowing networked input from Max/MSP for interfacing of the *Wii Fit* balance board with the game
- Design of *RTMix* free audio-oriented software
- Contributions to Linux Kernel's PCMCIA and ALSA modules
- Design of *SPiDSiG* free audio-oriented cross-platform software
- Instrument and code contributions to the *RTcmix* project
- Collaborator with Mara Helmuth on the *Internet2* research project titled *Soundmesh*
- Co-Author of the *disis_munger~* (a.k.a. *munger1~*) Max/MSP external
- *Shaders Ahoy!* collection of real-time texture processing algorithms for Max/MSP/Jitter released for public consumption under the GPL license
- *Recorder9* Max/MSP abstraction for real-time audio loop recording and processing released as public domain software
- Contributor to the Linux *Superkaramba* desktop enhancement project

Production

- Soundtrack composer for the *FreeCol* entertainment software
- Author of the Linux desktop sound theme "*Borealis*"
- Production of audio and video materials (*ICMC 2001*, College-Conservatory of Music studio report)
- Recording and re-mastering recitals, concerts, and lectures
- Multimedia design (websites, video, animations, installations, software, games)

Other

- "Computer Systems in Music Education" Session Chair at ICMC 2007.
- Paper reviewer for the International Computer Music Conference (2007) and Linux Audio Conference., (2006-present).



Additional information on projects below available at <http://disis.music.vt.edu/main/portfolio.html>

"EAGER: Drummer Game: A Massive-Interactive Socially-Enabled Strategy Game" (Co-PI): 2009-10.

- \$149,648 awarded by the [National Science Foundation](#).
- Cross-disciplinary research involving CS/CHCI, Music, and Visual Arts.
- Focus on design and development of a new gaming paradigm that combines spectacle/live performance and professional musicianship, CUDA platform for massive crowd simulation, and interactive algorithmic music.
- Performers (percussionists) use beat patterns to control their respective cohorts of Terracotta soldiers.
- Use of authentic Chinese drums.

L2Ork Linux Laptop Orchestra (PI): Summer 2009 – present.

- The design and development of World's first Linux-powered laptop orchestra
- Received \$50,000 in internal support and external sponsorships
- Focus on the design and development of custom hardware, supporting software, and optimization of the Linux platform
- Secured 4 undergraduate summer research assistantships
- Additional 2 assistantships through NSF's Research Experience for the Undergraduates
- Secured additional \$10,000 for 3 laptop orchestra tours.
- Spring 2010, 2011: Collaborated with the Boys & Girls Club of Roanoke, VA, building a satellite laptop orchestra for the inner city 5th graders. Students were trained as part of an afterschool program with the ultimate goal of co-performing as part of the spring DISIS event at Virginia Tech. The project is funded externally by 21st Century and Bank of America grants in the amount of \$20,000, securing additional 3 undergraduate research positions.
- Manning a Department of Music information booth and four performances by the Linux Laptop Orchestra (L2Ork) at the Virginia state Fair, Richmond, Virginia. September 29-October 9, 2011.
- As part of outreach:
 - Manning a Department of Music information booth and four performances by the Linux Laptop Orchestra (L2Ork) at the Virginia state Fair, Richmond, Virginia. September 29-October 9, 2011.
 - Performance at the Gilbert Linkous Elementary School, Blacksburg, Virginia. October 14, 2011.
- 2 publications.
- Additional info available at <http://l2ork.music.vt.edu>.

Discrete REconfigurable Aural Matrix (DREAM) (a.k.a. AMHDI) (PI) – a Two-dimensional speaker array for the sonification of composite Geometric shapes and images: 2006 - present (work-in-progress).

- Principal Investigator for a collaborative project involving Virginia Tech's CS, CHCI, CCTAD, and Music.
- Foundation for a Novel 'Interactive Aural Painting.'
- Use of an aural technology for the visually impaired.
 - Aural PONG game concept.
- Received Virginia Tech College of Liberal Arts and Human Sciences \$32,000.00 exploratory research grant for the phase I (November, 2006).
- Received Virginia Tech Institute for Society, Culture, and Environment (ISCE) \$20,000.00 summer grant (April, 2007).
 - Generated two undergraduate assistantships.
- Patent disclosure December, 2008.
- Phase II research Fall 2009.
- 2 publications.

Use of Sonification to Improve Program Comprehension (Co-PI): Summer 2008 – present.

- Research into use of sonification in IDEs
- Project in part sponsored by the NSF's Research Experience for the Undergraduates (2008, 2009)
- 1 Publication to the IEEE's ICPC
- Foundation for one Masters thesis in HCI

Digital Arts Research Collaborative REVO-OVER – commissioned by the new Arts Museum of Western Virginia: 2007-2008.

- Est. \$500,000 in funding of a multimedia installation.
- Interactive multimedia installation featuring video, 3D graphics, experimental 3D audio array and supporting algorithms, and interactive layer for audience participation.
- Responsible for building a CAVE-like system in Max/MSP/Jitter and thus providing a “glue” infrastructure for contributions from six members of the collaborative, sound and music production, and design and implementation of the interactive system.

Wake Forest Intelligent Sustainable Space (PI) – a collaborative endeavor among Wake Forest, Wachovia, Virginia Tech, Winston-Salem, Winston-Salem Center for Design Innovation, and Workplace Strategies: Fall 2007.

- Focus on development of intelligent sustainable space that will be shared between Wachovia corp. and Wake Forest MBA program.
- Use of interactive multimedia installation to facilitate collaboration and information retrieval.
- Received \$14,200 in initial funding for virtual interactive space prototyping using Unity3D.
- Received \$10,000 in Phase 2 funding from VT ICTAS and ISCE.

Networked Ensemble (collaborator) – joint project among National University of Singapore, Stanford University and Virginia Tech with focus on exploring collaborative potential of network-based music interaction: 2007 - present (work-in-progress).

- Awarded \$975,978 (Singapore currency).

Interactive Taiji (PI) – Summer 2008 – present.

- Project involving Music, Computer Science, HCI, Human Development, and Education.
- The design and development of a taiji audio-visual game system for use in K-12 education and its assessment as a catalyst for promoting self-regulation.
- Collaborative effort with regional K-12 institutions (Craig and Montgomery Counties).
- Received \$5,000 Art+Technology+Education seed grant.
- Phase II (Fall 2009 - present) focuses on retrofitting the system for distance learning, with a goal of producing first online-based physical education module.
- Received \$5,000 grant from the VT's Institute for Distance and Distributed Learning for phase II (Fall 2009).

μLibrary for Interfacing Max/MSP/Jitter with Unity3D (PI) – Spring 2008.

- Software layer for seamless integration of Max/MSP/Jitter and Unity3D.
- Available from <http://ico.bukvic.net/Max/>.
- Pre-patent disclosure June 2008.

Virginia Tech Stakeholders Project (co-PI) – soundtrack, effects, and interactivity for the multimedia 2-DVD production for the funding campaign of the new Performing Arts Center: Spring 2007.

- Received \$25,000 grant.
- Soundtrack for the visual flyby animation.
- Sound effects, ambient sounds, and interactive algorithms for the interactive first-person virtual tour of the new facility using Unity3D engine.
- Orchestral soundtrack for the video documentary.

- Generated two undergraduate assistantships.

SMILE Project (co-PI) – program dedicated to teaching science and mathematics to young children in remote regions of Appalachia: 2007 - present.

- Received Virginia Tech ISCE \$20,000.00 summer grant (April, 2007).
- Design of tunes as scientific metaphors.
- Generated three undergraduate assistantships.

Shaders Ahoy! (PI) – collection of real-time texture processing algorithms using shader language for Max/MSP/Jitter released under the GPL license: 2007.

- Available for download at <http://ico.bukvic.net/Max/>.

disis.aka.wiiremote~ Max/MSP Object (PI) – design of an external to allow interfacing with the Wii Fit platform: Fall 2008.

disis_munger~ (a.k.a. munger1~) Max/MSP Object (PI) – porting and enhancing the object using a platform and software-independent flex framework: Spring 2007.

- Collaboration with Princeton University's PerColate author Dr. Dan Trueman, flex author Thomas Grill, and Ji-Sun Kim, CCTAD graduate assistant.
- Generation of Pure-Data and Max/MSP-transparent code.
- Annotated documentation for the porting endeavors.
- Additional features coupled with backwards compatibility.
- Modularization of design and optimization of code.

0th Sound – recontextualization of silence through association with mathematical paradox of number zero: 2005 - present.

- Philosophical and pragmatic exploration of silence in contemporary multimedia art.
- Preliminary work presented at SPARK festival in Minnesota (February, 2005).

RTMix – a Real-Time Interactive Multimedia Art Performance, Composition, and Coaching Interface: 2001-2004.

- Libre software written in C++/Qt for the purpose of establishing a unifying performance interface for the live and interactive multimedia art employing a variety of DSP software. It is under continuous development.
- Sponsored by the University of Cincinnati \$1,500.00 Research Council Grant (2002).
- Presented on the *ICMC 2002* (Gothenburg, Sweden), *SEAMUS 2003* (Tempe, AZ), *LAC 2004* (Karlsruhe, Germany) conferences.
- Published paper in the *Organised Sound* (December 2002).
- Central interface for several personal compositions.
- Featured on the Stanford's CCRMA <http://ccrma.stanford.edu/planetccrma/software/>, Eastman University's Turnkey <http://lulu.esm.rochester.edu/kevine/turnkey/home.html>, DeMuDi <http://www.agnula.info> and APODIO <http://www.apo33.org/apodio/doku.php> Linux distributions, and College-Conservatory of Music (CCM)² studios <http://meowing.memh.uc.edu>.
- Additional documentation available at <http://ico.bukvic.net/Linux/RTMix/RTMix-docs/>.

Interactive 3D Multimedia Landscapes as a form of modular work of art: 2001-2002.

- Utilizes 3DML meta-language that enables users to experience interactive 3D world populated with the 3D positioned sound in their Internet browsers.
- Sponsored by the University of Cincinnati \$1,500.00 Research Council Grant (2001).
- Aim is to establish a new artistic genre utilizing Internet resources in which listener/observer actively determines the pace and subsequently the structure of a piece. The form needs to remain sane and resilient to the listener's tampering, always resulting in a satisfactory structure.

Stochastic Phrase and Density Structure Generator (*SPiDSiG*): 2001.

- Cross-platform free software written in C used for sculpting formal density of a work of art by utilizing subtractive stochastic approach with complementary prime forms of mathematical curves as probability descriptors.
- Presented on the *SEAMUS 2002* conference in Iowa City, IA (April 2002).

Internet2 research project – collaboration with Mara Helmuth: 2000-2005.

- Resulted in a *Soundmesh* free software for OS X and Linux capable of streaming CD-quality sound via *Internet2* connection, thus posing as a unique real-time collaborative music-making tool.
- Written in C++/Qt (Linux version).
- Project was at the *SEAMUS 2001* conference.
- Collaborations with institutions across the country.

Design of new *RTcmix* interactive DSP instruments: 1998-2001.

- Developed REVMIX and MOCKBEND *RTcmix* instruments.

PUBLICATIONS

- Bukvic, I., S. Betz. "USING GAMING ENGINE FOR VIRTUAL PROTOTYPING AND IMPACT ASSESSMENT OF COMPLEX INTERACTIVE ART INSTALLATIONS." *International Computer Music Conference*, Huddersfield, England, July 31-August 5, 2011.
- Bukvic, I., T. Martin and *Michael Matthews. "Moving Beyond Academia Through Open Source Solutions—Introducing L2Ork, Virginia Tech's *Linux Laptop Orchestra*." *Society for Electro-Acoustic Music in the United States* conference, Miami, FL, January 20-22, 2011.
- Bukvic, I., T. Martin, E. Standley and *Michael Matthews. "Introducing L2Ork: *Linux Laptop Orchestra*." *New Interfaces for Music Expression* conference, Sydney, Australia, June 15-18, 2010.
- Bukvic, I. and *Ji-Sun Kim. (2010). "PERCEPTION AND INTERPRETATION OF CONCURRENT AURAL SHAPES USING DREAM INTERFACE." *International Computer Music Conference*, Stony Brook, NY, June 1-5, 2010.
- Bukvic, I. and Ji-Sun Kim. "μ MAX-UNITY3D INTEROPERABILITY TOOLKIT." *International Computer Music Conference*, Montreal, Canada, 375-378, August 16-21, 2009.
- Hussein, K., E. Tilevich, I. Bukvic and SooBeen Kim. "Sonification design guidelines to enhance program comprehension." *IEEE's International Conference on Program Comprehension*, Vancouver, Canada, 120-129, May 17-19, 2009.
- Bukvic, I., D. Gracanin, F. Quek. "INVESTIGATING ARTISTIC POTENTIAL OF THE DREAM INTERFACE: THE AURAL PAINTING." *International Computer Music Conference 2008*, Belfast, UK.
- Bukvic, I. "libALSA, libJACK,... lib-what? I Just Want To Do My Work." Keynote at the 25th *Tonmeistertagung* conference, Leipzig, Germany, 274-277, November 13-16, 2008.
- Bukvic, I., J. Kim, D. Trueman, T. Grill. "munger1~: TOWARDS A CROSS-PLATFORM SWISS-ARMY KNIFE OF REAL-TIME GRANULAR SYNTHESIS." *International Computer Music Conference 2007*, Copenhagen, Denmark.
- Bukvic, I. (2007). "iCulture." *Vennue*, Roanoke, VA, Blackmediagroup, 1 (Nov.).
- "munger1~: TOWARDS A CROSS-PLATFORM SWISS-ARMY KNIFE OF REAL-TIME GRANULAR SYNTHESIS." *International Computer Music Conference*, Copenhagen, Denmark, 2007.
- "Made in Linux — The Next Step," *Linux Audio Conference* proceedings, Karlsruhe, Germany, 2005.
- "The 0th Sound." published in proceedings for the *SPARK* festival, Minnesota, 2005.
- "Tabula rasa," (D.M.A. Dissertation) *Ohiolink*. Available at <http://www.ohiolink.edu/etd/view.cgi?acc%5Fnum=ucin1131065629>, 2005.
- CD review (Eric Chasalow's *Left to His Own Devices*) published in the printed edition of *Array*, *ICMA's Array* magazine (2005).
- "Linux as a Mature Digital Audio Workstation in Academic Electroacoustic Studios – Is Linux Ready for Prime Time." *Proceedings of the International Computer Music Conference 2004*, Miami, Florida.

"University of Cincinnati, College-Conservatory of Music Center for Computer Music - (CCM)² in 2004." (co-author) *International Computer Music Conference 2004*, Miami, Florida.

"RTMix – towards a standardized interactive electroacoustic art performance interface." *Organised Sound* Vol.7 No.3 (December 2002), 275-286.

ICMC 2002 concert review published in the *Array*, ICMA's online magazine (available at <http://www.computermusic.org/array.php?artid=95>)

"RTMix: a Real-Time Interactive Electroacoustic Music Performance, Composition, and Coaching Interface." *Proceedings of the International Computer Music Conference 2002*, 79-82.

"SlipStreamScapes III: The Sea*," (Master of Music Thesis) *Ohiolink*. Available at <http://www.ohiolink.edu/etd/view.cgi?ucin984494016>, 2005.

"MIDI and Art Music – an Aesthetic Comparison." *M-Station* online magazine (available at <http://mstation.org>), 2002.

* Originally titled *Meditations 3: The Sea*.

PRESENTATIONS

Workshop on building your own Linux Laptop Orchestra (L2Ork) at Hogeschool vor de Kunsten Utrecht, Utrecht, Netherlands. May 26, 2011.

Workshop on building your own Linux Laptop Orchestra (L2Ork) at STEIM, Amsterdam, Netherlands (<http://www.steim.org/steim/events.php?event=411>). May 24, 2011.

Workshop on building your own Linux Laptop Orchestra (L2Ork) at Art Meets Radical Openness (LiWoLi) festival, Kunstuniversität Linz, Austria (<http://www.liwoli.at/vortragende/l2ork>). May 14, 2011.

Tonmeister.de invited keynote, Leipzig, Germany, Fall 2008.

"The Art of Composer and Multimedia Sculptor." *50 years of Computing Conference*, Cincinnati, Ohio, Fall 2008.

"Communal Performance Art through Technology: A Study of 'Soul' Composition for Baritone, Computer, and Audience." *College Music Society National Conference*, Atlanta, Georgia, Fall 2008.

Wake-Forest Intelligent Sustainable Space Multimedia Installation Project (Phase I PI) prototype showcase as part of the Workplace Strategies booth at the University of North Carolina Greensboro's *Design, Art and Technology Symposium*, Spring 2008.

New Music Festival guest speaker, UNC Greensboro, November 2007.

"Complementing Traditional Performance Idiom with Contemporary Technology—A Study of *SlipStreamScapes V: Lullaby* Electroacoustic Piece for Two Pianos and Interactive Computer." *College Music Society National Conference*, Salt Lake City, Utah, Fall 2007.

"Pebble Space: An Intelligent Communal and Collaborative Space." Interactive multimedia installation proposal to the Wake Forest partners for the new downtown Charlotte seven building construction project, Fall 2007.

"Integrating Documentation, End-User Support, and Developer Resources using *.linuxaudio.org." *Linux Audio Conference* at TU Berlin, Germany, Spring 2007.

"The Genius of the Place: Land and Identity in Contemporary Art" visiting lecturer for the exhibition at the Arts Museum of Western Virginia, Roanoke, VA, November 2006.

mama.mi2.hr visiting lecturer at the *mama.mi2.hr* contemporary multimedia institute in Zagreb, Croatia, Summer 2006.

"Linuxaudio.org — Who, What, and Why?" *Linux Audio Conference* in Karlsruhe, Germany, Spring 2006.

"Practical Guide to Interactive Electroacoustic Art." *SEAMUS 2005 Conference*, Ball State University, IN, Spring 2005.

Panel member by invitation on the topic "Standards From the Computer Music Community." *International Computer Music Conference 2004*, Miami, Florida, Summer 2004.

Workshops in Electronic and Computer Music visiting lecturer, Oberlin College, Summer 2004.

Panel member by invitation on the topic "Future of Linux Audio." *Linux Audio Conference* in Karlsruhe, Germany, Spring 2004.

"Unlocking the Full Potential of RTMix real-time interactive multimedia Art Performance, Composition, and Coaching Interface," *Linux Audio Conference* in Karlsruhe, Germany, Spring 2004.

"Hurdles and Benefits of Introducing Linux as a Viable Digital Audio Workstation in the Academic Environment," *Linux Audio Developer* conference in Karlsruhe, Germany, Spring 2004.

Uzmah festival visiting lecturer, Hvar, Croatia, Summer 2003.

"RTMix — a Real-Time Interactive Multimedia Art Performance, Composition, and Coaching Interface," *SEAMUS 2003* Conference, Tempe, AZ, Spring 2003.

"Stochastic Phrase and Density Structure Generator (SPDSG) Music Software," *SEAMUS 2002* Conference, Iowa City, IA, Spring 2002.

The logo for 'COMMISSIONS' features a stylized 'C' icon to the left of the word 'COMMISSIONS' in a bold, sans-serif font.

Virginia Tech ICTAS interactive aural sculpture installation (permanent exhibit) in collaboration with sculptor Prof. Steve Bickley. November 3, 2009.

callitwhatchawant for the Virginia Tech TWISTS *Living Darwin* play. October 7, 2009.

Borealis desktop sound theme licensed by Fidelity Inc. (<http://www.fidelity.com/index.php>). March 2, 2009.

SUN Microsystems sound theme for Open Solaris. Fall 2008.

TWISTS soundtrack for online podcasts. Fall 2008.

17 a collaboration with Sue Ott Rowlands and Tibor Varszegi on a theatrical multimedia play, Romania. Fall 2008.

derelicts of time by Jay Crone, project in part sponsored by the CLAHS creative grant. Spring 2008.

TWISTS "Nuclear Power Reconsidered" theatrical play. Fall 2007.

Soul for computer and voice by Theodore Sipes. 2007.

VT Stakeholders Project soundtrack, effects, and interactivity for the design of multimedia fund-raising materials. 2007.

FreeCol soundtrack <http://www.freecol.org> (in-progress). 2007.

Gaudeamus by Virginia Tech Graduate School. 2006.

Borealis expansion of the sound theme by Gregoire Gentil (for an undisclosed software project). 2006.

Symmetries by violinist Anna Zielinska. 2005.

Tabula rasa by NeXT Ens contemporary ensemble. 2004.

SlipStreamScapes V: Lullaby by pianist Michael Fowler. 2002.

MEDIA EXPOSURE

International

Interview covering Linux Laptop Orchestra (L2Ork) performance at New Interfaces for Music Expression (NIME) conference, NRK Oslo radio station, Oslo, Norway. June 1, 2011.

eHrvatska 88 - L2Ork, Linux Laptop Orchestra . (May 28, 2011). Retrieved August 20, 2011, from <http://www.youtube.com/watch?v=PI3uZtoxT4I>

Nova vizija stvaranja muzike. (May 20, 2011). Retrieved August 20, 2011, from http://www.b92.net/kultura/vesti.php?nav_category=271&yyyy=2011&mm=05&dd=20&nav_id=513411

Interview covering Linux Laptop Orchestra (L2Ork) performance, RTL TV, Zagreb, Croatia (video mirror: <http://www.youtube.com/watch?v=Gehn-Unvx4s>). May 19, 2011.

Interview covering Linux Laptop Orchestra (L2Ork), creative opus, and a broadcast of Citadel (see V.B.6), Hrvatski Radio, Zagreb, Croatia. May 19, 2011.

Dalmacija u mom oku. (May 23, 2011). Retrieved August 20, 2011, from <http://www.inboxict.net/2011/05/dalmacija-u-mom-oku/>

Maštruko, O. (May 18, 2011). Linux laptop orkestar u Zagrebu. Retrieved August 20, 2011, from <http://www.bug.hr/vijesti/linux-laptop-orkestar-zagrebu/108752.aspx>

Poslušajte orkestar koji svira prijenosnike i Linux. (May 18, 2011). Retrieved August 20, 2011, from <http://www.tportal.hr/scitech/tehno/128450/Poslusajte-orkestar-koji-svira-prijenosnike-i-Linux.html>

Phillips, D. (2010). Introducing L2Ork: The Linux Laptop Orchestra. Linux Journal, 193, cover & 50-57.

MSI Donates Computers to Help Virginia Tech Students Form the First Ever Linux Laptop Orchestra. (Mar 12, 2011). Retrieved August 20, 2011, from <http://www.hexus.net/content/item.php?item=22865>

Phillips, D. (January 11, 2010). The Gifting Season: Linux Audio For The Holidays. Retrieved February 18, 2010, from <http://www.linuxjournal.com/content/gifting-season-linux-audio-holidays>

Kirn, P. (December 31, 2009). CDM's Biggest Music Tech Stories of 2009. Retrieved January 1, 2010, from <http://createdigitalmusic.com/2009/12/31/cdms-biggest-music-tech-stories-of-2009/>

Griffith, J. (December 21, 2009). L2Ork – Virginia Tech Linux Laptop Orchestra . Retrieved January 1, 2010, from <http://hackaday.com/2009/12/21/l2ork-virginia-tech-linux-laptop-orchestra/>

Kirn, P. (December 31, 2009). An Orchestra of Linux Laptops, and How to Make Your Own Laptop Instrument. Retrieved January 1, 2010, from <http://createdigitalmusic.com/2009/12/21/an-orchestra-of-linux-laptops-and-how-to-make-your-own-laptop-instrument/>

Первый в мире ноутбук-оркестр на базе Linux. (December 4, 2009). Retrieved January 1, 2010, from <http://www.pcnews.ru/news/linux-l2ork-2009-isce-laptop-orchestra-msi-ubuntu-wiimotes-nunchuk-ikea-ivica-ico-bukvic-mac-youtube-k12-284820.html>

Un direttore d'orchestra di nome Linux. (December 4, 2009). Retrieved January 1, 2010, from <http://www.wired.it/news/archivio/2009-12/04/un-direttore-d%27orchestra-di-nome-linux.aspx>

Presentando L2Ork, la primera orquesta con ultra-portátiles con GNU/Linux. (December 3, 2009). Retrieved January 1, 2010, from <http://www.alcanceibre.org/article.php/presentando-l2ork-orquesta-netbooks-linu>

Introducing L2Ork, World's First Linux Laptop Orchestra . (December 3, 2009). Retrieved January 1, 2010, from <http://slashdot.org/story/09/12/03/2018253/Introducing-L2Ork-Worlds-First-Linux-Laptop-Orchestra>

660,999 hits at Linux Laptop Orchestra (L2Ork) website and 11,500+ views of YouTube L2Ork video clips covering debut. December, 2009.

UNITY 2.6 goes Free + Max/UNITY Bridge. (November 1, 2009). Retrieved August 21, 2011, from <http://www.vdmokstati.com/2009/11/02/unity-2-6-goes-free-maxunity-bridge/>

Kirn, P. (April 6, 2009). More Max+Unity Game Engine Goodness, with Powerful Toolkit for Max, Jitter, Pd. Retrieved November 21, 2009, from <http://createdigitalmusic.com/2009/04/06/more-maxunity-game-engine-goodness-with-powerful-toolkit-for-max-jitter-pd/>

Kirn, P. (April 6, 2009). Process Textures with Jitter, Connect to Unity Game Engine. Retrieved November 21, 2009, from <http://createdigitalmotion.com/2009/04/06/process-textures-with-jitter-connect-to-unity-game-engine/>

Kirn, P. (April 6, 2009). Immersive Music: Revo:overR Installation, Lightbent Synth, Max + Unity. Retrieved November 21, 2009, from <http://createdigitalmusic.com/2009/04/06/immersive-music-revoover-installation-max-unity/#more-5556>

Phillips, D. (2008). State of the Art: Linux Audio 2008. Linux Journal, 173, 88-95.

Phillips, D. (2006). An Interview With Ivica "Ico" Bukvic. Linux User & Developer, 66, 70-73.

National

Kramer, E. (September 22, 2011). Road Trip | State-of-the-art art. Retrieved September 24, 2011, from <http://www.courier-journal.com/article/20110923/SCENE05/309230026/Road-Trip-State-art-art>

Copley, R. (September 16, 2011). Transy's new digital art festival promises plenty of 'be-boop-bop.' Retrieved September 24, 2011, from <http://www.kentucky.com/2011/09/16/1883224/transys-new-digital-art-festival.html>

Chamber Punk and Laptop Orchestras. (October 8, 2010). Retrieved February 7, 2011, from <http://withgoodreasonradio.org/2010/10/chamber-punk-and-laptop-orchestras/>

Coy, K. (October 8, 2010). New Music Festival. Retrieved February 7, 2011, from <http://www.carolinianonline.com/new-music-festival-1.1674407>

Perret, P. (September 23, 2010). Mysterious Musical Adventures in New Music Festival (Two Concerts). Retrieved February 7, 2011, from <http://cvnc.org/reviews/2010/092010/UNCGNMF.html>

Hahn, A. (April 21, 2010). SIUC to host Virginia Tech Laptop Orchestra. Retrieved February 7, 2011, from <http://news.siuc.edu/news/April10/042110amh10061.html>

Sommerfeldt, J. (March 15, 2010). The Linux Laptop Orchestra . Retrieved August 21, 2011, from <http://ccmsquared.blogspot.com/2010/03/linux-laptop-orchestra.html>

Linux Laptop Orchestra – L2Ork – Gives Debut Performance (November 30, 2009). Retrieved January 1, 2010, from <http://www.newswise.com/articles/linux-laptop-orchestra-l2ork-gives-debut-performance2>

Linux Laptop Orchestra (L2Ork) interview with Connie Stevens, WVTF and National Public Radio (NPR). November 10, 2009.

Guarino, M. (October 26, 2009). Who owns an artist's legacy? Christian Science Monitor. Retrieved August 21, 2011, from <http://www.csmonitor.com/2009/1026/p27s01-algn.html>

Interview covering Elemental and Cyrene Reefs interactive multimedia installations presented at the New Interfaces for Music Expression (NIME) conference; Carnegie Mellon University (CMU), Pittsburg, Pennsylvania. June 5, 2009.

Rudy, P. (October 2006). SEAMUS MEETS SEAMS, STOCKHOLM, SWEDEN. SEAMUS Newsletter, (4), 18. Retrieved August 21, 2011, from <http://www.seamusonline.org/Newsletters2006.zip>

Regional

Beals, J. (October 10, 2011). Whir of Wii remotes creates sweet sound. Retrieved October 18, 2011, from <http://fredericksburg.com/News/FLS/2011/102011/10102011/657296>

Elliott, J. (September 29, 2011). Virginia Tech's Linux Laptop Orchestra to perform at Virginia State Fair. Retrieved September 29, 2011, from <http://www.vtnews.vt.edu/articles/2011/09/092911-clahs-l2orkstatefair.html>

Great Futures Start Here. (2011). Boys & Girls Clubs of Southwest Virginia 2010 Annual Report, 2011, 7.

Amelink, C. (May 2, 2011). Impact of Fellowships Propels Faculty Research Goals. Retrieved August 21, 2011, from <http://www.iddl.vt.edu/pdfs/DLSSnewsletterSp2011.pdf>

Prest, R. & Spears, K. (2011). Linux Laptop Orchestra. *Philologia*, 3. Retrieved August 21, 2011, from <http://www.scribd.com/doc/61063109/Philologia-Volume-III-2011>

Stafford, T. (2011). Interview with Ico Bukvic of the Linux Laptop Orchestra . Retrieved August 21, 2011, from <http://www.wuvt.vt.edu/WOOVE/Interviews/Interview-with-Ico-Bukvic-of-the-Linux-Laptop-Orchestra>

Ducote, H. (April 6, 2011). Virginia Tech's laptop orchestra to perform with Boys and Girls Club. Retrieved May 5, 2011, from <http://www.vtnews.vt.edu/articles/2011/04/040611-cfa-laptoporchestra.html>

Laptop Orchestra Coming To Dumas Center. (March 30, 2011). Retrieved October 19, 2011, from <http://www.bgcswwa.org/page14481331.aspx>

Linux Laptop Orchestra (L2Ork) feature, Virginia Tech's 60-second radio spot during football game half-time. September 18, 2010.

Elliott, J. (2010). Linux Laptop Orchestra at Virginia Tech. *Spheres*, 2010, 10-11.

Ivica Ico Bukvic receives Virginia Tech's 2010 XCaliber Award. (May 3, 2010). Retrieved August 21, 2011, from <http://www.universityawards.vt.edu/award.php?item=691>

Elliott, J. (April 16, 2010). University's laptop orchestra performs at home, on the road, and with children. Retrieved May 13, 2010, from <http://www.vtnews.vt.edu/story.php?relyear=2010&itemno=315>

Elliott, J. (April 12, 2010). Laptop orchestra combines music with technology, gaming skills. Retrieved May 13, 2010, from <http://www.vt.edu/spotlight/achievement/2010-04-12-laptop/laptop-orchestra.html>

Out and About : wii Orchestra. (March 31, 2010). Retrieved August 21, 2011, from http://www.fox2127.com/dpp/out_and_about/oa_03.31.2010

Virginia Tech College of Architecture and Urban Studies. Cause for Innovation. Blacksburg, Virginia: Bison Printing, 2010.

Arnold, R. (February 11, 2010). Tech sculpture professor shapes lobby of ICTAS building. Retrieved August 21, 2011, from <http://www.collegiatetimes.com/stories/15030/tech-sculpture-professor-shapes-lobby-of-ictas-building>

Allen, M. Washington and Lee dancers have more than a Wii bit of fun. The Roanoke Times. January 26, 2010.

Allen, T. (January 20, 2010). Faculty awarded distance learning research fellowships. Retrieved Feb. 18, 2010, from <http://www.vtnews.vt.edu/story.php?relyear=2010&itemno=7>

Reilly, A. (January 18, 2010). Linux Laptop Orchestra reprograms musical conventions. Retrieved August 21, 2010, from <http://www.collegiatetimes.com/stories/14849/linux-laptop-orchestra-reprograms-musical-conventions>

Dickens, T. Music Lab partners rock. The Roanoke Times. December 29, 2009. Extra 1, 6.

Matzke-Fawcett, A. L2ORK isn't your typical orchestra. The Roanoke Times. December 17, 2009. New River Valley Current 1, 8.

Henshaw, J. (December 4, 2009). Virginia Tech students demo new laptop orchestra. Retrieved January 1, 2010, from http://www2.wsls.com/sls/news/local/new_river_valley/article/virginia_tech_students_demo_new_laptop_orchestra/66577/

Virginia Tech gives people an affordable alternative, WDBJ7 TV, Roanoke, Virginia. December 4, 2009.

Allen, M. (December 2, 2009). Linux Laptop Orchestra ("L2Ork") performs Friday at Virginia Tech. Retrieved January 1, 2010, from <http://blogs.roanoke.com/rtblogs/arts/2009/12/02/linux-laptop-orchestra-l2ork-performs-friday-at-virginia-tech/>

Ultra-affordable laptop orchestra debuts (December 2, 2009). Retrieved January 1, 2010, from <http://www.ece.vt.edu/>

Elliott, J. (December 2, 2009). Linux Laptop Orchestra gives debut performance at Virginia Tech. Retrieved January 1, 2010, from <http://www.vtnews.vt.edu/story.php?itemno=908&relyear=2009>

Video: Interview with Ivica Ico Bukvic (October 19, 2009). Retrieved August 21, 2011, from <http://www.vt.edu/spotlight/innovation/2009-10-19-darwin/twists-ico-interview.html>

Matzke-Fawcett, A. Technology meets art at Virginia Tech. The Roanoke Times. September 25, 2009.

Chadwick, H. (September 22, 2009). New gallery in Kent Square premieres with eight exhibitions. Retrieved February 18, 2010, from <http://www.vtnews.vt.edu/story.php?relyear=2009&itemno=716>

Interview covering Digital Interactive Sound & Intermedia Studio (DISIS); Collegiate Times. April 7, 2009.

Kittredge, K. An Exhibit You Can Touch. The Roanoke Times. February 7, 2009, Extra 1.

The University Chamber Music Series presents "New Music from Virginia Tech." The Roanoke Times. October 17, 2008, 11.

Yi, J. (October 8, 2008). Hokie Tonk. Retrieved on August 21, 2011, from http://www.collegiatetimes.com/stories/2008/10/08/hokie_tonk

Creative technologies in the arts. (August 25, 2008). Retrieved on August 21, 2011, from http://www.vt.edu/spotlight/innovation/2008-08-25_technology_art/2008-08-25_technology_art.html

Makhdoom, K. (April 30, 2006). The Language of Music: More Than What Meets the Ear. Retrieved on August 21, 2011, from <http://www.planetblacksburg.com/news/komal-043006.html>

First artist faculty member of the Center for Human-Computer Interaction, Virginia Tech, Blacksburg, Virginia. Spring 2006.

KEY CREATIONS & PERFORMANCES

Rain – composition for the *Linux Laptop Orchestra (L2Ork)*, 2011.

- Incorporates elements of Taiji (a.k.a. Tai Chi) mind-body practice as gesture choreography.
- Shows:
 - Invited concert at Roanoke College, Roanoke, VA, April 1, 2011. (preview)
 - Dumas center performance with Boys & Girls Club, Roanoke, VA, April 8, 2011. (preview)
 - Virginia Tech DISIS children's 7pm event with Boys & Girls Club, Blacksburg, VA, April 9, 2011. (preview)
 - Virginia Tech 8pm DISIS benefit concert, Blacksburg, VA, April 2011. (premiere)
 - Art Meets Radical Openness (LiWoLi 2011) festival, Stadtwerkstatt Linz, Austria, May 14, 2011.
 - Kino Šiška, Ljubljana, Slovenia, May 15, 2011.
 - Museum of Contemporary Arts, Zagreb, Croatia, May 18, 2011.
 - Academy of Music and Theater, Hamburg, Germany, May 21, 2011.
 - Zaal100, Amsterdam, Netherlands, May 25, 2011.
 - Hogeschool vor de Kunsten Utrecht, Utrecht, Netherlands, May 26, 2011.
 - Ferrum College, Ferrum, Virginia. October 19, 2011.

Serene – composition for the *Linux Laptop Orchestra (L2Ork)*, 2011.

- Incorporates elements of Taiji (a.k.a. Tai Chi) mind-body practice as gesture choreography.
- Shows:
 - Invited concert at Roanoke College, Roanoke, VA, April 1, 2011. (preview)
 - Virginia Tech 8pm DISIS benefit concert, Blacksburg, VA, April 2011. (premiere)
 - Art Meets Radical Openness (LiWoLi 2011) festival, Stadtwerkstatt Linz, Austria, May 14, 2011.
 - Kino Šiška, Ljubljana, Slovenia, May 15, 2011.
 - Museum of Contemporary Arts, Zagreb, Croatia, May 18, 2011.
 - Academy of Music and Theater, Hamburg, Germany, May 21, 2011.
 - Zaal100, Amsterdam, Netherlands, May 25, 2011.
 - Hogeschool vor de Kunsten Utrecht, Utrecht, Netherlands, May 26, 2011.
 - New Interfaces for Music Expression (NIME) international conference hosted in Oslo, Norway, June 1, 2011.
 - Ferrum College, Ferrum, Virginia. October 19, 2011.

13 – structured improvisation for the *Linux Laptop Orchestra (L2Ork)* and percussion, 2010.

- Shows:
 - DISIS spring event (part of *Arts Fusion*), Blacksburg, VA, April 17, 2010. (premiere)
 - *Southern Illinois Improvisation Series (SiiS)*, Carbondale, IL, April 22, 2010.
 - Duke University afternoon concert series, Durham, NC, September 19, 2010.
 - Winston-Salem University lecture performance, Winston-Salem, NC, September 20, 2010.
 - 2 performances (afternoon and evening concert) at *New Music Festival*, University of North Carolina Greensboro, NC, September 21, 2010.
 - Virginia Tech 8pm DISIS benefit concert, Blacksburg, VA, April 2011.
 - Art Meets Radical Openness (LiWoLi 2011) festival, Stadtwerkstatt Linz, Austria, May 14, 2011.
 - Kino Šiška, Ljubljana, Slovenia, May 15, 2011.
 - Museum of Contemporary Arts, Zagreb, Croatia, May 18, 2011.
 - Academy of Music and Theater, Hamburg, Germany, May 21, 2011.
 - Zaal100, Amsterdam, Netherlands, May 25, 2011.
 - Hogeschool vor de Kunsten Utrecht, Utrecht, Netherlands, May 26, 2011.
 - New Interfaces for Music Expression (NIME) international conference hosted in Oslo, Norway, June 1, 2011.

What's He Building? – an arrangement of Tom Waits's piece for *Linux Laptop Orchestra* (L2Ork) and narrator, 2010.

- Shows:
 - DISIS spring event (part of *Arts Fusion*), Blacksburg, VA, April 17, 2010. (premiere)
 - *Southern Illinois Improvisation Series* (SiIS), Carbondale, IL, April 22, 2010.
 - Duke University afternoon concert series, Durham, NC, September 19, 2010.
 - Winston-Salem University lecture performance, Winston-Salem, NC, September 20, 2010.
 - 2 performances (afternoon and evening concert) at *New Music Festival*, University of North Carolina Greensboro, NC, September 21, 2010.
 - Invited concert at Roanoke College, Roanoke, VA, April 1, 2011.
 - Art Meets Radical Openness (LiWoli 2011) festival, Stadtwerkstatt Linz, Austria, May 14, 2011.
 - *Kino Šiška*, Ljubljana, Slovenia, May 15, 2011.
 - *Museum of Contemporary Arts*, Zagreb, Croatia, May 18, 2011.
 - *Academy of Music and Theater*, Hamburg, Germany, May 21, 2011.
 - *Zaal100*, Amsterdam, Netherlands, May 25, 2011.
 - *Hogeschool vor de Kunsten Utrecht*, Utrecht, Netherlands, May 26, 2011.
 - Ferrum College, Ferrum, Virginia. October 19, 2011.

Blues Brothers Theme – an arrangement of *Everybody Needs Somebody to Love* by Bert Berns, Solomon Burke, and Jerry Wexler, for the Boys & Girls Club of Roanoke, VA satellite laptop orchestra.

- Shows:
 - DISIS spring event (part of *Arts Fusion*), Blacksburg, VA, April 17, 2010. (premiere)

Citadel – composition for the *Linux Laptop Orchestra* (L2Ork) and soprano, 2009.

- Text by Ivan Gundulic (1589-1638).
- Shows:
 - *L2Ork Sneak Preview*, Blacksburg, VA, December 4, 2009. (premiere)
 - DISIS spring event (part of *Arts Fusion*), Blacksburg, VA, April 17, 2010.
 - *Sonic Explorations* concert series, Cincinnati, OH, April 20, 2010.
 - *Southern Illinois Improvisation Series* (SiIS), Carbondale, IL, April 22, 2010.
 - *International Intermedia Festival of Telematic Arts*, Indianapolis, IN, April 25, 2010.
 - Graduation recital for Chelsea Crane (L2Ork soprano), Blacksburg, VA, May 4, 2010.
 - Duke University afternoon concert series, Durham, NC, September 19, 2010.
 - Winston-Salem University lecture performance, Winston-Salem, NC, September 20, 2010.
 - 2 performances (afternoon and evening concert) at *New Music Festival*, University of North Carolina Greensboro, NC, September 21, 2010.
 - *Society for Electro-Acoustic Music in the United States* conference, January 22, 2011.
 - Invited concert at Roanoke College, Roanoke, VA, April 1, 2011.
 - Dumas center performance with Boys & Girls Club, Roanoke, VA, April 8, 2011.
 - Virginia Tech DISIS children's 7pm event with Boys & Girls Club, Blacksburg, VA, April 9, 2011.
 - Virginia Tech 8pm DISIS benefit concert, Blacksburg, VA, April 2011.
 - Art Meets Radical Openness (LiWoli 2011) festival, Stadtwerkstatt Linz, Austria, May 14, 2011.
 - *Kino Šiška*, Ljubljana, Slovenia, May 15, 2011.
 - *Museum of Contemporary Arts*, Zagreb, Croatia, May 18, 2011.
 - *Academy of Music and Theater*, Hamburg, Germany, May 21, 2011.
 - *Zaal100*, Amsterdam, Netherlands, May 25, 2011.
 - *Hogeschool vor de Kunsten Utrecht*, Utrecht, Netherlands, May 26, 2011.
 - *New Interfaces for Music Expression* (NIME) international conference hosted in Oslo, Norway, June 1, 2011.
 - Ferrum College, Ferrum, Virginia. October 19, 2011.

Half-Life – composition for the *Linux Laptop Orchestra* (L2Ork) and narrator, 2009.

- Based on text by Elena Filatova.
- Shows:
 - *L2Ork Sneak Preview*, Blacksburg, VA, December 4, 2009. (premiere)
 - DISIS spring event (part of *Arts Fusion*), Blacksburg, VA, April 17, 2010.
 - *Sonic Explorations* concert series, Cincinnati, OH, April 20, 2010.
 - *Southern Illinois Improvisation Series* (SiIS), Carbondale, IL, April 22, 2010.
 - *International Intermedia Festival of Telematic Arts*, Indianapolis, IN, April 25, 2010.
 - Graduation recital for Chelsea Crane (L2Ork soprano), Blacksburg, VA, May 4, 2010.
 - Duke University afternoon concert series, Durham, NC, September 19, 2010.
 - Winston-Salem University lecture performance, Winston-Salem, NC, September 20, 2010.
 - 2 performances (afternoon and evening concert) at *New Music Festival*, University of North Carolina Greensboro, NC, September 21, 2010.
 - *Society for Electro-Acoustic Music in the United States* conference, January 22, 2011.
 - Invited concert at Roanoke College, Roanoke, VA, April 1, 2011.
 - Art Meets Radical Openness (LiWoLi 2011) festival, Stadtwerkstatt Linz, Austria, May 14, 2011.
 - *Kino Šiška*, Ljubljana, Slovenia, May 15, 2011.
 - *Museum of Contemporary Arts*, Zagreb, Croatia, May 18, 2011.
 - *Academy of Music and Theater*, Hamburg, Germany, May 21, 2011.
 - *Zaal100*, Amsterdam, Netherlands, May 25, 2011.
 - *Hogeschool vor de Kunsten Utrecht*, Utrecht, Netherlands, May 26, 2011.
 - Ferrum College, Ferrum, Virginia. October 19, 2011.

Singing Darwin – aural installation using hemispherical speaker and self-generating aural fabric, 2009.

- Shows:
 - *Singing Darwin* 24-hour performance event, Blacksburg, VA, November 23-24, 2009 (premiere).
 - *International Computer Music Conference*, Huddersfield, England, July 31-August 5, 2011.

NUPUY – a physical wall sculpture (a.k.a. ambient art) populated with interactive system that combines aural soundscapes with information commissioned by Virginia Tech ICTAS, 2009.

Interactive Taiji – dynamic/evolving soundtrack for the *Interactive Taiji* research pilot, 2009.

- A part of the funded research pilot focusing on enhancing PE curriculum at a regional public school through the use of interactive technology in conjunction with Taiji arts.
- Exhibits/Demos:
 - *Experiential Galleria*, Blacksburg, VA, September 23, 2009 – present.

FORGETFULNESS – interactive audio-visual setting of a poem by Denise Duhamel, 2009.

- Shows:
 - DISIS *Digital Id 090424* performance event (as part of the Arts Fusion week), Blacksburg, VA, April 2009 (premiere).
 - *Sonic Explorations* concert series in Cincinnati, OH, February 20, 2010.
 - *Society for Electro-Acoustic Music in the United States* conference (installation version), St. Cloud, MN, April 8-10, 2010.
 - *MUSICACOUSTICA 2010*, Beijing, China, October 27, 2010.
 - *Unveiling the Painted Curtain: 21 C Interactive Art*; Morlan Gallery, Transylvania University, Lexington, Kentucky. September 16-October 28, 2001.
 - *TAMU Laptet and Friends* concert; Texas A&M University, College Station, Texas. November 1, 2011.

17 – interactive audio-visual theatre for a solo performer, computer, and visuals, 2008/9.

- Realized in collaboration with actress and director Sue Ott Rowlands and actor and performer Tibor Varszegi.
- Shows:
 - *DISIS Digital Id 090424* performance event (as part of the Arts Fusion week), Blacksburg, VA, April 24, 2009 (premiere).
 - Performance in the *Malom Theatre*, Jaszberenyé, Hungary, December 16, 2009.

Elemental and Cyrene Reefs – commissioned works for the DARC exhibit at the new Taubman Museum of Art in Roanoke, VA, 2008.

- Interactive multimedia art installation.
- *Cyrene Reefs* realized in collaboration with a conceptual artist Eric Standley.
- For concepts, please visit <<http://disis.music.vt.edu>>
- Shows:
 - Taubman Museum of Art in Roanoke, VA, November 2008 - March 2009.
 - *Kent Square Galleria*, Blacksburg, VA, May 6, 2009.
 - NIME conference at Carnegie Mellon, Pittsburgh, PA, June 2009.
 - *Experiential Galleria*, Blacksburg, VA, September 23 - present.

derelicts of time – interactive audio-visual work for trombone and computer, 2008.

- In part sponsored by the VT CLAHS grant.
- Commissioned by Jay Crone.
- Shows:
 - *DISIS Digital Id 080418* multimedia event (as part of the Arts Fusion week), Blacksburg, VA, April 2008 (premiere).
 - Chamber Music concert series performance at Virginia Tech (2 performances), Blacksburg, VA, October 18-19, 2008.
 - *Electronic Music Midwest* festival performance, Kansas City, KS, November 2009.
 - *Sonic Explorations* concert series in Cincinnati, OH, February 20, 2010.
 - *New York City Electronic Music Festival*, March 25, 2010.
 - *MUSICACOUSTICA 2010*, Beijing, China, October 27, 2010.
 - *Mako Theater* concert, Beijing, China, October 28, 2010.

iteration13 – interactive audio-visual work for tap dancer, visual artist, audio-visual hyperinstrument and computer, 2008.

- In collaboration with Ann Kilkelly and Carol Burch-Brown.
- Shows:
 - *DISIS Digital Id 080418* multimedia event (as part of the Arts Fusion week), Blacksburg, VA, April 2008 (premiere).
 - SEAMUS 2009 performance at Sweetwater headquarters in Fort Wayne, IA, April 17, 2009.
 - *International Intermedia Festival of Telematic Arts*, Indianapolis, IN, April 25, 2010.
 - *International Computer Music Conference*, Stony Brook, NY, June 5, 2010.
 - Virginia Tech College of Architecture and Urban Studies Symposium, in Blacksburg, VA, February 18, 2011.
 - Virginia Tech *Awakening the Digital Imagination* Faculty Seminar, November 30, 2011.

air.crane.moo.latte.runway – interactive audio-visual work for an actor, computer and video, 2008.

- In collaboration with Sue Ott Rowlands and Carol Burch-Brown.
- Shows:
 - *DISIS Digital Id 080418* multimedia event (as part of the Arts Fusion week), Blacksburg, VA, April 2008 (premiere).

heads will roll – interactive multimedia installation/game, 2007.

- Use of Max/MSP/Jitter.
- Shows:

- *DISIS Digital Id 071201* multimedia event, Blacksburg, VA, December 2007 (premiere).

with delicate risk – audio-visual work, 2007.

- In collaboration with Dane Webster.
- Performances:
 - *DISIS Digital Id 071201* multimedia event, Blacksburg, VA, December 2007 (preview).
 - *DISIS Digital Id 080418* multimedia event (as part of the Arts Fusion week), Blacksburg, VA, April 2008 (premiere).
 - *SEAMUS 2008*, Salt Lake City, UT, April 2008.
 - *Athens International Film Festival*, Athens, OH, April 2008.
 - *Brooklyn International Film Festival*, May 2008.
 - *ICMC2008*, Belfast, UK, August 2008.
 - *International Film Festival*, Amsterdam, Netherlands, October 17, 2008.
 - http://www.dnerve.com/IAFF_2008/films/international_shorts.html
 - Virginia Tech Chamber Music series (2 performances), Blacksburg, VA, October 18-19, 2008.
 - 3rd Practice computer music festival at University of Richmond, VA, November 4, 2008.
 - <http://igor.richmond.edu/3p08>
 - ACM Southeast Digital Animation Festival (SEDAF), Clemson, SC, March 20, 2009.
 - <http://www.cs.clemson.edu/acmse09/Animation/>
 - *Kent Square Galleria*, Blacksburg, VA, May 6, 2009.
 - *Maryland Film Festival*, Baltimore, MD, May 8, 2009.
 - www.mdfilmfest.com
 - http://www.missiontix.com/moreinfo.cfm?Product_ID=7668
 - *Fear No Film Festival*, Salt Lake City, UT, June 25, 2009.
 - <http://www.slcfilmcenter.org/?id=448>
 - *Frozen Film Festival*, San Francisco, CA, July 9, 2009.
 - <http://www.frozenfilmfestival.com/pages/lineup09.php>
 - *Experiential Galleria*, Blacksburg, VA, September 23, 2009 - present.

TWISTS – “Reconsidering Nuclear Power” an evening-long play by Theatre Workshop in Science, Technology and Society.

- Music, effects, sound design, and audio production.
- Sponsored by the VT Institute for Society Culture and Environment.
- Performances:
 - Virginia Tech nuclear power week (premiere), November 2007.

Pandora – for laptop, visuals, quad audio and motion-based gestural hyperinstrument, 2007.

- Performances:
 - *DISIS Digital Id 070429* happening in Blacksburg, VA, April 2007 (premiere).
 - Oberlin College Festival, OH, May 2007.

Soul – for baritone and laptop, based on a poem by Emily Dickinson, 2007.

- In collaboration with Theodore Sipes.
- Performances:
 - *DISIS Digital Id 070429* happening in Blacksburg, VA, April 2007 (premiere).
 - University of Michigan, Ann Arbor, September 2007.
 - Grand Valley State University, Grand Rapids, MI, September 2007.
 - Radford University, VA, October 2007.
 - Virginia Tech *Ut Prosim*, October 2007.
 - Virginia Tech (Dr. Sipes recital), November 2007.
 - College Music Society conference, September, 2008.

Gaudeamus – for woodwind nonet, 2006.

- Performances:
 - Virginia Tech Commencement, VA, December 2006 (premiere).
 - Virginia Tech Commencement, VA, May 2007.
 - Virginia Tech Commencement, VA, December 2007.
 - Virginia Tech Commencement, VA, May 2008.

Structured Improvisation I – Chalybs – for laptop, 2006.

- Performances:
 - SEAMUS 2007 conference in Iowa, March 2007 (premiere).

All Your Sprache are Belong to Strauss – for tape, 2006.

- Winner of the 20th Anniversary SEAMUS Electroclips contest by membership vote, 2006.
- Featured in the SEAMUS Newsletter Issue 4, October 2006.
- Performances:
 - SEAMUS 2006 conference in Oregon, March 2006 (premiere).
 - US 2 concert titled *From Desolation to the Desert With Love* (Fylkingen), Stockholm, Sweden, September 14, 2006.
 - ICM2006 conference in New Orleans, LA, November, 2006.
 - CEC concert series at Concordia University, Canada, November, 2006.
 - WOBC broadcast in Oberlin, OH, May, 2007.

Symmetries – for 8-channel computer, violin, and hyperinstrument, 2005.

- Performances:
 - LAC3 conference in Karlsruhe, Germany, April 2005 (premiere).
 - *Sonic Explorations*, Cincinnati, OH, April 2005.
 - *0th Sound* contemporary multimedia art concert (Dissertation Concert), St. Pius X, Edgewood, KY, May 2005.
 - *Music05* festival, Cincinnati, OH, June 2005.
 - *Accent05* festival faculty concert, Cincinnati, OH, June 2005.
 - *Resonance FM* radio station, London, UK, August 2005.
 - ICMC2006 conference in New Orleans, LA, November 2006.
 - Dance choreography by the Tulane University's Newcomb Dance Company.

“Borealis” Linux Desktop Sound Theme – collection of freely downloadable desktop sounds, 2004.

- <http://www.kde-look.org/content/show.php?content=12584>
- Most downloaded (270,000+ downloads) and one of the highest rated Linux desktop sound themes on the kde-look.org.
- Portions commissioned by Gregoire Gentil for utilization in an internal software project August 2006.
- Selected as the default theme for the UbuntuStudio 7.04 distribution, January 2007.
- Selected as the default theme for the UbuntuStudio 7.10 distribution, October 2007.
- Selected as the default theme for the Dropline GNOME project, December 2007.
- Selected as the default theme for the UbuntuStudio 8.04 distribution, April 2008.
- Featured in the “Let it Beep” by Scott Carr (May 2008).
- Selected as the default theme for the UbuntuStudio 8.10 distribution, October 2008.
- Licensed by *Fididel Inc*, March 2, 2009.
 - <http://www.fididel.com/index.php>
- Selected as the default theme for the UbuntuStudio 9.04 distribution, April 2009.
- Selected as the default theme for the UbuntuStudio 9.10 distribution, October 2009.
- Selected as the default theme for the UbuntuStudio 10.04 distribution, April 2010.
- Selected as the default theme for the UbuntuStudio 10.10 distribution, October 2010.

Legisonitus #1 – Gone in 8 Minutes and 11.527 Seconds – for tape, 2004.

- Performances:

- WECM Oberlin College summer festival concert, OH, June 2004.
- ICMC2004, Miami, FL, November 2004.
- *Threshold* festival, Ball State University, IN, November 2004.
- *0th Sound* contemporary multimedia art concert (Dissertation Concert), St. Pius X, Edgewood, KY, May 2005.
- *Sonic Explorations* concert series in Cincinnati, OH, April 2006.

Tabula rasa – DISSERTATION work for flute, cello, piano, and computer, 2004.

- In part sponsored by the \$6,000.00 national graduate student award by the Croatia's National Ministry of Science, Education, and Sports.
- Performances:
 - NeXT Ens premiere, Cincinnati, OH, April 2004.
 - Oberlin College's *mmm* festival, Oberlin, OH, May, 2004.
 - Live broadcast on the WOBC radio station in Oberlin, OH, May, 2004.
 - *Music04* festival, Cincinnati, OH, June 2004.
 - *EMM* festival, Lewis University, IL, September 2004.
 - *CMS Great Lakes Chapter Conference*, WKU, KY, April 2005.
 - *FEMF* festival, FL, April 2005 (by invitation).
 - *0th Sound* contemporary multimedia art concert (Dissertation Concert), St. Pius X, Edgewood, KY, May 2005.

Out of Doors Suite Part 2 – audio-visual composition utilizing Macromedia Flash, 2003.

- Performances:
 - *Rocky's Reels* at the College of Design, Architecture, Art and Planning, Cincinnati, 2003.
 - *Sonic Explorations* concert series in Cincinnati, OH, January 2004.
 - *SPARK* festival, University of Minnesota, February 2004.
 - *0th Sound* contemporary multimedia art concert (Dissertation Concert), St. Pius X, Edgewood, KY, May 2005.
 - *ICMC2005* conference in Barcelona, September 2005.
 - *GMEM Trans'Electroacoustique* festival (by invitation) in France, January 2006.
 - *SEAMUS 2006* conference in Oregon, March 2006.
 - *Arts Fusion* festival in Blacksburg, VA, April 2006.
 - *Third Practice* festival at University of Richmond, November 2006.
 - *Popcorn!* At Stanford University, CCRMA, January 2007.
 - *New Music Festival* at UNCG, October 2007.

What Happened – intermedia project involving video, animation, and audio, 2003.

- Performances:
 - *Rocky's Reels* at the College of Design, Architecture, Art and Planning, Cincinnati, 2003.
 - *SPARK* festival, University of Minnesota, February 2005.
 - *0th Sound* contemporary multimedia art concert (Dissertation Concert), St. Pius X, Edgewood, KY, May 2005.

Synaesthesia – endless ever-changing aural installation in Macromedia Flash format, 2003.

- Performances:
 - *0th Sound* contemporary multimedia art concert (Dissertation Concert), St. Pius X, Edgewood, KY, May 2005.
 - Permanent installation available on composer's homepage.

Jadran poslije kiše – for solo cello, 2003. (4')

- Winner of the *Upbeat* composition competition, 2003.
- Performances:
 - *Upbeat* international summer music festival in Hvar, Croatia, July 2003.

- *0th Sound* contemporary multimedia art concert (Dissertation Concert), St. Pius X, Edgewood, KY, May 2005.
- *College Music Society* international conference, Dubrovnik, Croatia, June 30, 2009.

Imitation Crabmeat Rag – an interactive 4-channel electroacoustic work for a live performer and computer, 2003. (8')

- Interactivity achieved by utilizing Peavey 1600x MIDI controller that modifies 3D positioning of various sound sources, as well as their volume and spectral content.
- Performances:
 - *Sonic Explorations* concert series in Cincinnati, OH, May 2003.
 - *SEAMUS 2004* conference in San Diego, CA, March 2004.
 - *WECM* Oberlin College summer festival concert, OH, June 2004.
 - *0th Sound* contemporary multimedia art concert (Dissertation Concert), St. Pius X, Edgewood, KY, May 2005.
 - Selected as a signature soundtrack for Virginia Tech *TWISTS Choices and Challenges*, Blacksburg, VA, October 2008.

SlipStreamScapes V: Lullaby – an interactive electroacoustic work for 2 pianos and a computer, 2002. (9')

- Interactivity achieved utilizing *RTcmix* and composer-created software *RTMix*, whose function is to separately manipulate two pianos.
- Performances:
 - Pre-premiere at the *Interactive Installations* event at College-Conservatory of Music, April 2002.
 - *Music02* international music festival in Cincinnati, OH, June 2002.
 - Indiana University, June 2002.
 - *OCEAn* festival and a live broadcast on WOBC radio station in Oberlin, OH, November 2002.
 - *ICMC2003* conference in Singapore, October 2003.
 - *LAC2* conference in Karlsruhe, Germany, April 2004.
 - *Accent04* Faculty Concert, Cincinnati, OH, June 2004.
 - *0th Sound* contemporary multimedia art concert (Dissertation Concert), St. Pius X, Edgewood, KY, May 2005.
 - CMS National Conference, Salt Lake City, Utah, November 2007.
 - *DISIS Digital Id 071201* multimedia event, Blacksburg, VA, December 2007.

Mr. Ping – for tape, 2001. (7')

- Performances:
 - *Sonic Explorations* concert series in Cincinnati, OH, January 2002.
 - *IEMF* festival in Cincinnati, OH, October 2002.
 - *SEAMUS 2003* conference in Tempe, AZ, March 2003.
 - *0th Sound* contemporary multimedia art concert (Dissertation Concert), St. Pius X, Edgewood, KY, May 2005.

SlipStreamScapes III: The Sea – interactive work for a solo guitar and computer in 5 movements, 2000. (28')

- Master Thesis work published as a first online music thesis on OhioLink (available at <<http://www.ohiolink.edu/etd/view.cgi?ucin984494016>>).
- Interactivity achieved utilizing *RTcmix* and an early version of the composer-created software *RTMix*.
- Performances:
 - MM degree recital, Spring 2001.
 - *Music2001* international music festival in Cincinnati, OH, June 2001.

- Oberlin College's *mmm* festival and a live broadcast on WOBC radio station in Oberlin, OH, May, 2004.
- WORT-FM 89.9 radio broadcast Madison, WI, March 2005.
- TU Berlin's Campusradio-online.de, Berlin, Germany, March 2007.

SlipStreamScapes II: Visions – for flute, bassoon, trumpet, piano, and marimba, 1999. (6')

- Utilizes composer-created software *SPiDSiG*
- Performances:
 - MM degree recital, Spring 2001.
 - *Music2000* international music festival in Cincinnati, OH, June 2001.

Polaris – for tape, 2000. (9')

- Performances:
 - *Sonic Explorations* concert series in Cincinnati, OH, Winter 2000.
 - *OCEAn* festival in Oberlin, OH, November 2000.

String Quartet No.2 “Croatian Anthem”, 1998, revised 2003. (8')

- Winner of the SAI composition competition, 1998.
- Performances:
 - BM degree recital, Spring 1998.
 - SAI concert series in Cincinnati, OH, Spring 1999.
 - *Music03* international music festival in Cincinnati, OH, June 2003.
 - Reading by the *Cuarteto Latinoamericano*, Cincinnati, OH, February 2004.

SlipStreamScapes I : Ruins for mezzo and stereo tape, 1998, revised 2005. (9')

- Utilizes composer-created software *RTMix* to coordinate mezzo and tape parts.
- Performances:
 - BM degree recital, Spring 1998.
 - *Music98* international music festival in Cincinnati, OH, June 1998.
 - Virginia Tech NASM concert, Blacksburg, VA, November 2006.

Nebulae – for 5 oboes, 1997.

- Performances:
 - College-Conservatory of Music in Cincinnati, OH, Fall 1997.
 - BM degree recital, Spring 1998.

Sziget – for SSAATTBB *a capella* choir, solo boy soprano, and percussion, 1997. (13')

- Part of the CCM chorale concert series conducted by John Leman.
- Performances:
 - College-Conservatory of Music Chorale as a part of my BM degree recital in Cincinnati, OH, Spring 1998.

Moonwaltz – for solo piano, 1994. (5')

- Performances:
 - College-Conservatory of Music in Cincinnati, OH, Fall 1994.
 - WGUC radio in Cincinnati, OH, Fall 1994.
 - BM degree recital, Spring 1998.

PUBLISHED WORKS

- Spring 2011: *iteration13* published as part of the 2010 International Computer Music Conference DVD.
- May 1, 2010: *FORGETFULNESS* published on the New River Journal, oldest journal of online new media in US. (<http://www.cddc.vt.edu/journals/newriver/09Spring/index.html>)
- Fall 2006: *All Your Sprache Are Belong to Strauss* featured on the SEAMUS 20th Anniversary Electroclips CD.

OTHER MEDIA

Intelligent Sustainable Space – an audio-visual virtual 3D environment simulating an interactive multimedia art installation concept, 2008.

- Sponsored by Wake-Forest MBA, Virginia Tech ISCE and ICTAS.
- Supported by Wachovia Inc.
- A variation of the project to be implemented as part of the DARC project.
- Available at <http://ico.bukvic.net/Temp/.Intelligent_Space>

Self-portrait – visual self-portrait presented in a form of a life-size poster, 2006.

- Exhibitions:
 - Cyberarts showcase at the Arts Fusion festival, Blacksburg, VA, April 2006 (premiere).

PERFORMANCE EXPERIENCE

Hyperinstruments

- *Linux Laptop Orchestra* (L2Ork) 2009-present.
- Performing own works utilizing custom instruments and/or interfaces 2000 - present.

Piano/Keyboard

- Performing own works and the contemporary piano literature, 1983 - present.
 - WTC marathon performance, Virginia Tech, January 2007.
- Organ performance, Cincinnati, OH, 1995-2005.

Conducting

- Music Director at St. Pius X Parish, Edgewood, KY, Fall 2004-2005.
- Choral conductor, Cincinnati, OH, 1995-2004.
- Performance of Azio Corghi's *Animi Motus* at the *Music02* international summer music festival, Cincinnati, OH, 2002.
- BM recital, Cincinnati, OH, 1998.
- Music Academy dissertation in choral conducting, performing sacred works including J.S. Bach's chorales, Zagreb, Croatia, 1991.

 **COLLABORATIONS**

Francis Quek (Virginia Tech), Mara Helmuth (University of Cincinnati), Brad Garton (Columbia University), Dave Topper (University of Virginia), John Gibson (University of Louisville), Christopher Bailey (College of William and Mary), Dan Trueman (Princeton University), Thomas Grill (College of Music, Vienna), Douglas Geers (University of Minnesota), Daniel Mason (University of Kentucky), Barbara Hayley (Tulane University), Michael Fowler (SIAL Sound Studios, Australia), Rena Ishii (University of Cincinnati), Anna Zielinska (Freelance Artist, Poland), Ivan Krznarić (Croatian Institute for Promotion of Education of the Visually Impaired), Denise Duhamel (Florida International University), Dane Webster (Virginia Tech), Eric Standley (Virginia Tech), Michael Dunston (Virginia Tech), Tom Martin (Virginia Tech), William Holbach (Virginia Tech), Denis Gracanin (Virginia Tech), Steve Harrison (Virginia Tech), Yong Cao (Virginia Tech), Tonya Lynette Smith Jackson (Virginia Tech), Carlos Evia (Virginia Tech), Simone Patterson (Virginia Tech), Ann Kilkelly (Virginia Tech), Carol Burch-Brown (Virginia Tech), Joy Rosenthal (Virginia Tech), Truman Capone (Virginia Tech), Theodore Sipes (Virginia Tech), Tracy Cowden (Virginia Tech), Lonce Wyse (National University of Singapore), Stephen David Beck (Louisiana State University), Isabel Bradburn (Virginia Tech), Kelly Parkes (Virginia Tech), Sue Ott Rowlands (Virginia Tech), Matthew Komelski (Virginia Tech), Jesse Heines (University of Massachusetts Lowell), Ed Fox (Virginia Tech), Mitzi Vernon (Virginia Tech), Ron Coulter (Southern Illinois University Carbondale), Mark Engebretson (University of North Carolina Greensboro), Scott Betz (Winston-Salem University), Daniel Fogel (Wake-Forest University), Peter Marsh (Workplace Strategies Inc.).

MISCELLANEA

Language Skills

- Fluent in English and Croatian.
- Adept in German and Russian (reading and speaking).
- Proficient in French and Latin (reading, basic speaking skills).
- Familiar with several other Slavic languages and dialects.

Memberships

- First non-CS member of Virginia Tech's *Center for Computer-Human Interaction* (by invitation), 2006 - present.
- American Society of Composers, Authors and Publishers (ASCAP), 2005 - present.
- Linuxaudio.org member, 2005 - present.
- College Music Society (CMS), 2004 - present.
- Electronic Music Foundation (EMF) (by invitation from the EMF President Joel Chadabe), 2003 - present.
- Society of Electro-Acoustic Music in US (SEAMUS), 2001 - present.
- International Computer Music Association (ICMA), 2001 - present.
- Active participant and contributor to various Linux user & developer groups (LAU, LAD, Linux Kernel, ALSA), 1998 - present.

Programming Skills

- C
- C++
- C#
- Qt/KDE
- GTK
- Tcl/Tk
- Kdevelop, Qt Developer, Microsoft VB, and VC++ environments
- Javascript
- Java
- Perl
- Python
- GLSL
- Cgi scripting
- Unix shell scripting
- HTML/DHTML/CSS
- PHP
- 3DML
- Adobe Flash
- Basic
- Pascal
- STOS
- Some assembly knowledge
- Some Objective C knowledge

Assorted DSP/Music/Media Software Knowledge

- *Max/MSP/Jitter, Logic, Cubase, Cakewalk products (Sonar, Project 5), Tracktion, Pro-Tools, Cool Edit Pro (a.k.a. Adobe Audition), Pure-Data/Gem, RTcmix, RTMix, Csound, Digital Performer, Muse, Ardour, Reason, Halion, NI Kontakt, Vsampler, GigaSampler, NI Komplete, Siedlaczek Classical Orchestra, East West Orchestra, various VST, DSSI, LV2, and LADSPA plug-ins and instruments, Vegas, snd, mxv, sweep, soundhack, Audacity, Rezound, Rt, Jack Audio*

Connection Kit, JAMin, Freqtweak, BIAS Peak, Jack-Rack, Logic (Pro), Supercollider, Buzz, DVD Architect, Apple Final Cut Pro, DVD Studio Pro, Camtasia Studio, Acid Pro, Roxio & Nero CD/DVD production suites, etc.

- Familiar with *Csound, Cecilia, Visual Orchestra*, and other *Csound* front-ends, *Vaz Modular, Glame, Spiral Synth Modular, EyesWeb*.
- Experienced at desktop publishing (*Microsoft Office, Open Office, KOffice, StarOffice*), graphic design (*Photoshop, Gimp, Paintshop, Adobe Studio*), Web design (*Adobe Dreamweaver, Frontpage, Nvu, Composer*), and 3D rendering (*Softimage, Blender, Unity3D*).
- Knowledgeable with *NeXT, IRIX, DOS, and Atari ST's TOS*.

Studio Hardware

- Linux, Mac, Windows, SGI (IRIX)
- Digital and analog mixing consoles
- Microphones, sound reinforcement, acoustic insulation
- Recording and playback interfaces
- MIDI controllers, notes, and sensors
- Haptic interfaces
- Pro-grade soundcards and digital I/O boards
- Custom-built hardware

Other Skills

- Post-production, recording, and digital re-mastering of audio materials utilizing a variety of the aforementioned software.
- Graphic, 3D, and Web design and animation.
- Orchestration, scoring, and arranging utilizing latest notation software (i.e. *Sibelius, Finale, Notion*).

REFERENCES

MARA HELMUTH
 Professor of Composition
 College-Conservatory of Music
 University of Cincinnati
 PO Box 210003
 Cincinnati, OH 45221-0003, USA
 +1 (513) 556-5040
 mara.helmuth@uc.edu
 (Composition, Technology, Administration)

JOEL HOFFMAN
 Professor of Composition
 Head, Division of Composition, Musicology and
 Theory, MusicX Festival Director
 College-Conservatory of Music
 University of Cincinnati
 PO Box 210003
 Cincinnati, OH 45221-0003, USA
 +1 (513) 556-9504
 joel.hoffman@uc.edu
 (Composition, Theory, Technology, Administration)

STEVEN DAVID BECK
 Professor of Composition & Computer Music
 Interim Director for AVATAR Initiative
 Louisiana State University
 Baton Rouge, LA 70803-2504, USA
 +1 (225) 578-2594
 sdbeck@lsu.edu
 (Administration, Composition)

SCOTT A. WYATT
 Director, Experimental Music Studios
 Professor, Composition
 Former SEAMUS President/Board Member
 University of Illinois, Urbana-Champaign
 Urbana, IL 61801, USA
 +1 (217) 333-1089
 s-wyatt@uiuc.edu
 (Administration, Composition)

ANDREA KAVANAUGH
 Professor, Computer Science
 CHCI Director
 2202 Kraft Drive, Office 131
 Virginia Tech
 Blacksburg, VA 24060, USA
 +1 (540) 231-1806
 kavan@vt.edu
 (Computer Science, Human-Computer
 Interaction)

ELIZABETH HOFFMAN
 Associate Professor, Coordinator,
 Composition/Theory
 Director, Washington Square Computer Music
 Studio
 Former SEAMUS Board Member
 NYU Department of Music, FAS
 24 Waverly Place, Room 268
 New York, NY 10003, USA
 +1 (212) 998-8301
 elizabeth.hoffman@nyu.edu
 (Technology, Administration)

SCOTT LINDROTH
 Vice Provost for the Arts, Professor of Music
 Duke University
 031 Mary Duke Biddle
 +1 (919) 684-0539
 scott.lindroth@duke.edu
 (Composition, Technology, Administration)

DAN TRUEMAN
 Associate Professor of Music
 Music Department
 Princeton University
 Princeton, NJ 08544, USA
 dan@music.princeton.edu
 (Composition, Technology, Theory)

GARY LEE NELSON

Emeritus Professor of Computer Music
Former Director of TIMARA Department
Oberlin College
Conservatory of Music
Oberlin, OH 44074, USA
Gary.Nelson@oberlin.edu
(Composition, Technology)

ERIC LYON

Sonic Arts Research Centre
Queen's University Belfast
Belfast BT7 1NN
Northern Ireland
+44 (0)28 9097 4726
e.lyon@qub.ac.uk
(Composition, Technology)

CHRISTOPHER HOPKINS

Associate Professor of Music
SEAMUS Board Member
239 Music Hall
Iowa State University
Ames, Iowa 50011, USA
+1 (515) 294-0396
hopkinsc@iastate.edu
(Administration, Composition, Technology)

JON CHRISTOPHER NELSON

Associate Dean of Operations
Professor of Computer Music, CEMI
UNT College of Music
1155 Union Circle, #311367
Denton, TX 76203, USA
+1 (940) 369-7531
jon.nelson@unt.edu
(Administration, Composition, Technology)

RUSSELL PINKSTON

Director, Electronic Music Studios
Former President of SEAMUS
Professor of Composition
The University of Texas at Austin
School of Music
1 University Station, E3100
Austin, TX 78712-0435, USA
+1 (512) 471-0865
r.pinkston@mail.utexas.edu
(Composition, Technology, Administration)

BRAD GARTON

Director, Computer Music Center
Columbia University
Music Department
New York, NY 10027, USA
+1 (212) 854-9266 or +1 (609) 448-9214
brad@music.columbia.edu
(Technology)

ROBERT ZIEROLF

Associate University Dean, Graduate School
University of Cincinnati
PO Box 210003
Cincinnati, OH 45221-0003, USA
+1 (513) 556-6046
robert.zierolf@uc.edu
(Technology, Theory)

MICHAEL FIDAY

Associate Professor of Composition
College-Conservatory of Music
University of Cincinnati
PO Box 210003
Cincinnati, OH 45221-0003, USA
+1 (513) 556-9499
michael.fiday@uc.edu
(Composition)