

CURRICULUM VITAE

Jeff Snyder

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RESEARCH AND TEACHING INTERESTS

Electronic musical instrument design, installation art, kinetic art, sound art, tuning theory and extended just intonation, historical electronic musical instruments and practices, algorithmic composition, physical computing, improvisatory systems, user interface design, analog circuit design, microcontroller programming, electronic dance music, American country music.

EDUCATION

Doctor of Musical Arts in Music Composition (with Distinction), Columbia University (2011)

Thesis: *Exploration of an Adaptable Just Intonation System*

Describes the creation of six experimental electroacoustic musical instruments designed to perform together as an ensemble, and the composition of a piece that uses these instruments exclusively. The instruments all employ a system of extended just intonation with a dynamically re-assignable reference pitch, and their performance interface design reflects this compositional goal.

Advisors: Brad Garton (dissertation advisor), Douglas Repetto, Joe Dubiel, Fred Lerdahl, George Lewis. (Outside dissertation readers: Larry Polansky, Nick Didkovsky)

Selected Coursework:

- MEAP (Music and Engineering Art Projects), taught by Dan Ellis and Douglas Repetto, an experimental class that lasted for 6 semesters and brought Electrical Engineering doctoral students from LabRosa together with Music Composition students from the Computer Music Center.
- Kinetic and Sound Sculpture, taught by Douglas Repetto and Jon Kessler.
- Advanced Orchestration, taught by Tristan Murail.

Master of Arts in Music Composition, Columbia University (2006)

Bachelor of Arts in Music Composition, University of Wisconsin-Madison (2002)

Thesis: *The Development of a Useful Musical Scale Based on Inharmonic Uniform Bar Partial*s

Advisors: Stephen Dembski, Joel Naumann

ACADEMIC BACKGROUND

Teaching:

MUS/COS 314: Electronic and Computer Music I, Princeton University
Lecturer, Fall 2017, Fall 2016, Spring 2016, Spring 2015, Spring 2014
Co-Lecturer, Spring 2013, Spring 2012, Spring 2011

MUS 316: Electronic and Computer Music II, Princeton University

Lecturer, Spring 2017, Spring 2016, Spring 2014
Co-Lecturer, Spring 2011

STC/MUS/ENG 209: Transformations in Arts and Engineering, Princeton University
Co-Lecturer, Spring 2017, Spring 2016

MUS 538: Musical Instrument Design (graduate seminar), Princeton University
Lecturer, Spring 2015

MUS 538: Sound Art (graduate seminar), Princeton University
Lecturer, Fall 2013

Modular Synthesis (informal graduate seminar), Princeton University
Teacher, Fall 2015

Studio Techniques (informal graduate seminar), Princeton University
Teacher, Fall 2013, Fall 2011

MUSI/HUMA W1123: Music Humanities, Columbia University
Lecturer, Fall 2009, Summer 2006, Spring 2006, Fall 2005
Teaching Assistant, Spring 2005

MUSI G6611: Advanced Topics II: Computer Music, Columbia University
Teaching Assistant, Spring 2008

MUSI G6601: Interactive Sound and Video, Columbia University
Teaching Assistant, Fall 2007, Fall 2006

MUSI G6602: Programming and Electronics for Art and Music, Columbia University
Teaching Assistant, Spring 2007

MUSI V2010: Rock Music, Columbia University
Teaching Assistant, Fall 2004

Honors, Grants, Fellowships, and Commissions:

New Jersey State Council for the Arts Individual Artist Fellowship Award, 2017
Princeton University, David A Gardner Magic Project Grant, 2017
Princeton University, Barr Ferree Publication Grant, 2017
Princeton University, David A Gardner Magic Project Grant, 2016
Princeton University, Barr Ferree Publication Grant, 2016
Vermont Studio Center, David Bermant Foundation Fellowship for Kinetic and Sound Art, 2015
Princeton University, Council for Science and Technology Development Grant, 2015
Haystack Mountain School of Crafts, Open Studio Artist Residency, 2014
Collide-O-Scope Music, Commission for "Walking in Altamira," 2014
Elektronmusikstudion (EMS Stockholm, Sweden), Guest Resident Composer, 2013
International Contemporary Ensemble, ICELab Composition Collaboration Commission, 2013
Computer Music Magazine, Innovation and Performance Award, 2009
Columbia University, Dissertation Fellowship, 2008-2009
Columbia University, Teaching Fellowship, 2003-2008
The Knights String Orchestra, Commission for string orchestra and electronics, 2008
Cypress Semiconductor, Innovator Design Award, 2007
Columbia University, Summer Research Fellowship 2004, 2007
Elliot Gattegno, Commission for saxophone solo with electronics, 2006
Columbia University, Music and Engineering Art Projects Summer Grant, 2006

L'Ensemble Portique, Commission for early music ensemble, 2006
Timetable, Commission for percussion trio, 2006
University of Wisconsin, Hilldale Undergraduate Research Fellowship, 2001
University of Wisconsin, Ethel J. Odegard Scholarship for Music Academics, 2000

Juried Conference Presentations:

- “Sunspots” by Jeff Snyder and Drew Wallace. Web-art artwork presented at the Web Audio Conference (WAC), in London, UK, August 2017
- “The Birl Physical Model” by Dharit Tantiviramanond and Jeff Snyder. Paper presented at the International Symposium on Musical Acoustics (ISMA), in Toronto, Canada, June 2017
- “OOPS: An Audio Synthesis Library in C for Embedded (and Other) Applications” by Mike Mulshine and Jeff Snyder. Paper presented at New Interfaces for Musical Expression (NIME), in Copenhagen, Denmark, May 2017
- “Constellation: A Musical Exploration of Phone-Based Audience Interaction Roles” by Nihar Madhavan and Jeff Snyder. Poster and composition presented at the Web Audio Conference (WAC), in Atlanta, GA, March 2016
- “Machine Yearning: An Industrial Robotic Arm as a Performance Instrument” by Jeff Snyder, Ryan Luke Johns, Axel Kilian, and Gene Kogan. Poster presented at New Interfaces for Musical Expression (NIME) in Baton Rouge, LA, May 2015
- “SkipStep: A Multi-Paradigm Touch-screen Instrument” by Avneesh Sarwate and Jeff Snyder. Poster presented at the International Computer Music Conference (ICMC/SMC) in Athens, Greece, October 2014
- “The Birl: An Electronic Wind Instrument Based on an Artificial Neural Network Parameter Mapping Structure” by Jeff Snyder and Danny Ryan. Poster presented at NIME in London, UK, June 2014
- “The Mobile Device Marching Band” by Jeff Snyder and Avneesh Sarwate. Poster presented at NIME in London, UK, June 2014
- “PLOrk Maracatu” arrangement by Jeff Snyder. Performance of a piece for mobile PLOrk at NIME in London, UK, June 2014
- “Sosoex” by Jeff Snyder. Piece performed at Sound and Music Computing (SMC) in Stockholm, Sweden, July 2013
- “Move/Bevaeg Dig” by Jeff Snyder and Stina Hasse. Installation art piece presented at BEAM Open Space in London, UK, July 2013
- “The JD-1: An Implementation of a Hybrid Keyboard/Sequencer Controller for Analog Synthesizers” by Jeff Snyder and Andrew McPherson. Paper presentation at NIME in Ann Arbor, MI, May 2012
- “The EMVibe: An Electromagnetically Actuated Vibraphone” by Cameron Britt, Jeff Snyder, and Andrew McPherson. Paper presented at NIME in Ann Arbor, MI, May 2012
- “Undeciphered Writing” by Jeff Snyder. Composition performed by Sideband as an invited performance at the Symposium of Laptop Ensembles and Orchestras (SLEO) in Baton Rouge, LA, April 2012

“Move/Bevæg Dig: An Interactive Sound Art Installation Concerning Movement” by Stina Hasse and Jeff Snyder. Paper presentation at the Music Mind and Invention Workshop (MMI) in Ewing, NJ, March 2012

“The Snyderphonics Manta: A Novel USB Touch Controller” by Jeff Snyder. Paper presentation at NIME in Oslo, Norway, May 2011

Invited Guest Teaching:

“Text-based Composition Techniques” Two-hour workshop in composition using text instructions instead of notation at the Princeton Arts and Humanities Symposium in Princeton, NJ, October 2017

“Introduction to Electronics and Microcontrollers using Arduino” Two-day workshop about artistic applications of microcontrollers at the Columbia University Computer Music Center in New York, NY, organized through the Sound Art MFA program, November 2016

“Listening Room.” Two-hour workshop about graphic notation at Bloomingdale School of Music in New York, NY, organized through ICE in cooperation with Composers and Schools in Concert (CSIC), April 2015

“Musical Instrument Building Using iOS Devices.” Three-hour workshop at the Department of Arts and Computational Technology at Goldsmiths University in London, UK, December 2014

“Capacitive Sensing for Art and Music.” Two-day workshop at the Berlin University of the Arts in Berlin, Germany, December 2014

Guest lecture for the Musical Instrument Design Class at the Center for Engineering Innovation Design (CEID) at Yale University in New Haven, CT, October 2014

“Musical Instrument Building Using iOS Devices.” One-hour workshop in electronic music at the Princeton Arts and Humanities Symposium in Princeton, NJ, October 2014

“Musical Instrument Building Using iOS Devices.” Four-hour workshop at the Last Weekend arts event in Catskills, NY, September 2014

“Actuated Instruments Workshop.” One-day workshop co-led with Andrew McPherson, Edgar Berdahl, and Cameron Britt at NIME in Ann Arbor, MI, May 2012

Workshop on electronic music co-led with Sam Pluta at Jacqueline Kennedy Onassis High School in New York, NY, October 2011

Invited Artist Talks:

Hostos Community College, Bronx, NY, October 2016

Brooklyn College, Brooklyn, NY, November 2015

Rutgers University, New Brunswick, NJ, October 2015

NYC Music Hackathon hosted by Spotify, New York, NY July 2015

University of California-San Diego, San Diego, CA, February 2015

Department of Arts and Computational Technology at Goldsmiths University in London, UK,
December 2014

Center for Digital Music at Queen Mary University of London, UK, December 2014

3DMin (Design, Development, and Dissemination of New Musical Instruments) Concert Series at
LEAP Gallery in Berlin, Germany, December 2014 (artist talk and performance)

Yale University Center for Engineering Innovation Design (CEID) in New Haven, CT, October
2014

NYC Music Hackathon hosted by Spotify in New York, NY, September 2014

Dartmouth University in Hanover, NH, February 2014

Engineering and the Arts Lunchtime Seminar at Princeton University in Princeton, NJ, November
2013

Wesleyan University in Middletown, CT, October 2013

Lucid NYC in New York, NY, July 2013

Dorkbot NYC in New York, NY, March 2013

“Electronic Made Acoustic” at the Symposium on Electroacoustic Performance at Brooklyn
College in Brooklyn, NY, April 2012

“Analog Pen Plotter Drawings” at the Algorithmic Unconscious show at Devotion Gallery in
Brooklyn, NY, November 2011 (gallery show)

Cycling 74 Expo at NYU Poly in Brooklyn, NY, October 2011 (performance)

Solid Sound Festival at Mass MOCA as part of “Handmade Music” in North Adams, MA, June
2011 (demonstration)

Leaders in Software Art Salon in New York, NY, May 2011

Guthman Musical Instrument Competition at Georgia Tech in Atlanta, GA, February 2011
(demonstration)

“Pen Plotter and PCB etching art” at Dorkbot NYC in New York, NY, November 2010

STEIM in Amsterdam, Netherlands, March 2010

Guthman Musical Instrument Competition at Georgia Tech, Atlanta, GA, March 2010
(demonstration)

Escrita na Paisagem festival in Evora, Portugal, June 2009 (performance)

Summer Music Class for High School Students at New York University in New York, NY, July
2008

“New Electronic Musical Instruments” at Dorkbot NYC in New York, NY, January 2008

“The Draftmasters” at Eyebeam Gallery’s “Untethered” in New York, NY, October 2007
(performance)

“The MEAPbook: A Polyphonic Touch-Sensitive Keyboard” at NIME in New York, NY, June
2007 (demonstration)

“MEAPsoft: MEAPsoft!!!” at Dorkbot NYC in New York, NY, January 2007

“Acoustic Sounds, Electronic Means” at Dorkbot NYC in New York, NY, October 2005

Conference Activities:

New Interfaces for Musical Expression (NIME), Copenhagen, Denmark, 2017

Presented an artwork in performance
Second Author on a paper presentation
Artistic committee reviewer

Web Audio Conference (WAC), London, UK, 2017

Presented an artwork
Artistic and scientific committee reviewer

International Symposium on Musical Acoustics (ISMA), Toronto, Canada, 2017

Second Author on a paper presentation

Sound and Music Computing (SMC), Espoo, Finland, 2017

Artistic committee reviewer

Simulation, Modeling, and Programming for Autonomous Robots (SIMPAN), San Francisco, CA,
2016

Third author on a paper

WAC, Atlanta, GA, 2016

Presented a performance
Second author on a poster presentation

International Conference on Live Interfaces (ICLI), Brighton, UK, 2016

Scientific committee reviewer

NIME, Baton Rouge, LA, 2015

Artistic committee reviewer
First author on a poster presented

International Computer Music Conference (ICMC), Athens, Greece, 2014

Technical program committee reviewer
Second author on a paper presented

NIME, London, UK, 2014

Presented a piece at the concert and two posters as first author
Artistic committee reviewer
Technical program committee reviewer

Society for Electro-Acoustic Music in the United States (SEAMUS), Middleton, CT, 2014

Presented a piece at the concert
Artistic committee reviewer

SMC, Stockholm, Sweden, 2013
Presented a piece at the concert

ICMC, Perth, Australia, 2013
Music Reviewer

Qubit Noise Non-ference, Brooklyn, NY, 2013
Presented a piece at the concert

SMC, Copenhagen, Denmark, 2012
Technical program committee member

NIME, Ann Arbor, MI, 2012
Co-led a workshop
First author on a paper and demo
Second author on another paper

Computer Music Multidisciplinary Research (CMMR), London, UK, 2012
Music committee member
Presented a piece at the concert

Symposium on Electroacoustic Performance, Brooklyn, NY, 2012
Invited presentation
Panel discussion member

Symposium on Laptop Ensembles and Orchestras (SLEO), Baton Rouge, LA, 2012
Attended and performed as an invited guest performer with Sideband

Music, Mind, and Invention (MMI), Ewing, NJ, 2012
Technical program reviewer
Presented a paper and demo
Performed as an invited guest performer with Sideband

ICMC, Huddersfield, UK, 2011
Music reviewer

NIME, Oslo, Norway, 2011
Presented paper and demo as first author

Volunteer and Related Activities:

Qubit Music
Advisory Board
FETA Prize in Sound Art, 2016
Judge
New York New Music Ensemble
Board of Directors

PROFESSIONAL EXPERIENCE

Positions:

Princeton University, Princeton, NJ

Director of Electronic Music, 2017 – present
Direct research, performance, and teaching activities at Princeton University in the field electronic music

Director of the Princeton Laptop Orchestra, 2013 – present
Leads rehearsals and presents performances with the laptop orchestra; composes pieces; develops software; serves as the group's artistic director and conductor

Senior Lecturer, 2011 – 2017
Teaches and co-teaches classes in electronic music; oversees teaching assistants

Technical Director, 2010 – present
Manages the recording and electronic composition studios; advises students on artistic projects involving electronics; hires and oversees graduate student assistant

Associate Research Scholar, 2012 – 2017
Conducts research into electronic musical instrument design, and electronic music performance and composition techniques; produces CAD drawings for electrical fabrication, mechanical fabrication, assembly, and machining; develops microcontroller code for firmware and multimedia computer code for software

Lecturer, 2011 – 2017
Teaches and co-teaches classes in electronic music; oversees teaching assistants

Associate Director of the Princeton Laptop Orchestra 2010-2013
Led rehearsals with the laptop orchestra; composed pieces; developed software

Snyderphonics, New York, NY and Princeton, NJ

Owner and Lead Design Engineer, 2009 – present
Designs and develops innovative electronic musical instruments for low-volume manufacturing

Carrier Records, New York, NY

Co-founder and Co-owner, 2009 – present
Curates and oversees recording projects for an independent, critically-acclaimed record label specializing in contemporary experimental music; designs album art; engineers and mixes recordings

Wet Ink Ensemble, New York, NY

Technical Director, 2004-2007
Member Composer, 2004-2012
Performer on Electronics, 2004 – present
Organized all technical requirements for Wet Ink performances; acted as recording engineer for all performances; and performed electronics parts

WKCR, New York, NY

Radio Host for “New Music,” 2004-2005
Prepared and hosted a weekly 3-hour program of contemporary classical music for radio broadcast in the New York City area

Selected Compositions:

Wave Fanfare (2018)

(for brass sextet, percussion quartet, feedback trombones, and mobile phone orchestra)
First performance by Tilt Brass, So Percussion, and the Princeton Laptop Orchestra (PLOrk) in October 2017 at the Princeton University in Princeton, NJ.

What if You Echoed Back Everything You Heard and Were Also Hearing Yourself (2017)

(for computer-controlled pipe organ and laptop orchestra)
First performance by Toneburst Laptop Orchestra in March 2017 at the Wesleyan University Chapel in Middletown, CT.

The Earth and the Eye (2017)
(three bass viols and harpsichord)
First performance by Sonnambula in March 2017 at Taplin Auditorium in Princeton, NJ.

Opposite Earth (2017)
(open instrumentation)
First performance by Princeton Laptop Orchestra in February 2017 at the Princeton Art Museum in Princeton, NJ.

Lynes (2016)
(for violin and piano)
First performance by Wet Ink Ensemble (Eric Wubbels, piano, and Josh Modney, violin) in September 2016 at Taplin Auditorium in Princeton, NJ.

Ghost Line (2016)
(for laptop orchestra)
First performance by Princeton Laptop Orchestra (PLOrk) in April 2016 at Taplin Auditorium in Princeton, NJ.

Science Fiction Was Wrong About a Lot of Things II (2016)
(for 6 iPads, 3 cellos, violin and keyboard)
First performance in June 2016, by the International Contemporary Ensemble (ICE) at Lincoln Center Out-of-Doors, as part of the Mostly Mozart Festival in New York, NY.

ICEblocks (2015)
(for laptop orchestra)
First performance by PLOrk in November 2015 at Grounds for Sculpture Museum in Hamilton, NJ.

Nux Eluthên (2015)
(for male vocal quintet - CTTBB)
First performance by Gallicantus in October 2015 at Taplin Auditorium in Princeton, NJ.

Altamira (2015)
(for alto flute, bass clarinet, and synthesizer)
First performance by Collide-O-Scope Music in June 2015 at Tenri Cultural Institute in New York, NY.

Sunspots 9 (2015)
(for fixed media and video)
First performance in March 2015 at Taplin Auditorium in Princeton, NJ.

Ritual (2014)
(for 6 iPad performers)
First performance by Sideband in November 2014 at College of the Holy Cross in Worcester, MA.

Fictitious Forces (2014)
(for percussion quartet, with four invented electronic percussion instruments)
First performance by students in the SOSI Summer Institute in August, 2014 in Princeton, NJ.

Modules (2014) co-composed with Sam Pluta, commissioned by ICE for ICElab 2014
(for brass ensemble, percussion and electronics)

First performance by the International Contemporary Ensemble (ICE) in March 2014 at the Stone in New York, NY.

Sunspots 1-8 (2007-2014) continuing series of solo electronic compositions for multi-channel fixed media.

First performance in March 2014 at Taplin Auditorium in Princeton, NJ.

Substratum (2013)

(for String Quartet and Pedal Steel Guitar)

First performance by Mivos Quartet with Susan Alcorn in April 2014 at Taplin Auditorium in Princeton, NJ.

Science Fiction Was Wrong About a Lot of Things (2013)

(for iPad orchestra with portable speakers)

First performance by the Princeton Laptop Orchestra in April 2013 at Taplin Auditorium in Princeton, NJ.

Sosoex (2013)

(for analog synthesizer, drum set, and live spatialization)

First performance by Jeff Snyder, Federico Ughi, Lainie Fefferman, and Jascha Narveson at the Sound and Music Computing Conference (SMC) in 2013 in Stockholm, Sweden.

Undeciphered Writing (2012)

(for Resophonic Manta, Bass Manta, treble and tenor Contravielles, six custom FSR boxes, and two timpani)

First performance by Sideband at LSU 2012 in Baton Rouge, LA.

Fantasy (2011)

(for Magnetic Resonator Piano)

First performance by Eric Wubbels at Rock Hall in December 2011 at Temple University in Philadelphia, PA.

Whac-A-Note (2010)

(for laptop orchestra using Manta controllers)

First performance by the Princeton Laptop Orchestra in April 2011 at Taplin Auditorium at Princeton University in Princeton, NJ.

Concerning the Nature of Things (2009)

(for Resophonic Manta, Bass Manta, treble and tenor Contravielles, Birl, and two voices)

First performance by Wet Ink Ensemble May 2009 at St. Peter's Church in Chelsea in New York, NY.

Percussion III (2008)

(for string orchestra and computer-controlled cymbals)

First Performance by the Knights String Orchestra in December 2008 at BargeMusic in New York, NY.

Traceries (2005, revised 2008)

(for chamber ensemble with electronics)

First performance by Wet Ink Ensemble in October 2008 at Roulette in New York, NY.

Vox In Vitro (2008)

(for three invented instruments – Manta, treble contravielle, tenor contravielle – and eight acoustic instruments)

First performance by the ICE chamber ensemble in April 2008 at Merkin Hall in Kaufman Center in New York, NY.

- Partita (2007)
(for three invented instruments – Manta, treble Contravielle, tenor Contravielle)
First performance by Eric Wubbels and Matt Hough in December 2007 at Symphony Space in New York, NY.
- Materials (2007)
(for chamber orchestra and live analog modular synthesizer through acoustic resonators)
First performance by Wet Ink Ensemble with the composer on electronics in May 2007 at New York Quarterly Meeting House in New York, NY.
- Epicycles (2007)
(for guitar and accordion)
First performance by Eric Wubbels (accordion) and Matt Hough (electric guitar) in January 2007 at Symphony Space in New York, NY.
- Interior (2006)
(for tenor saxophone modified with custom electronics)
Commission for Eliot Gattegno; first performance in November 2006 at Stanford University, in Palo Alto, CA.
- Nomographs (2006)
(for percussion trio)
Commission for Timetable Percussion Trio; first performance in September 2006 at Tenri Cultural Institute in New York, NY.
- Percussion II (2006)
(for computer controlled cymbals)
First Performance in February 2006 at Tenri Cultural Institute in New York, NY.
- Dance Suite (2006)
(for recorder, baroque cello and harpsichord)
Commission for L'Ensemble Portique. First performance in February 2006, in Madison, WI.
- Intervellum (2004)
(for electric guitar, Rhodes piano, violin and cello)
First Performance in December 2004 at Tenri Cultural Institute in New York, NY.
- Vibration I (2004)
(for accordion, three percussionists, electric guitar, and electronics)
First performance by Timetable percussion trio, William Schimmel on accordion, Matt Hough on guitar, Matt Cody conducting, and Jeff Snyder on electronics, on April 2004 at Merkin concert Hall at Kaufman Center in New York, NY.
- Tombeau (2003)
(for solo electronics)
First performance by the composer in January 2004 at the Tank in New York, NY.
- Retina (2002)
(for electronics, guitar, and percussion)
First performance by the composer on electronics, Zach Parker on guitar, Todd Carter on percussion on March 2003 at Deadtech Gallery in Chicago, IL.

Selected Artistic Collaborations, Sound Art and Installations:

Performs electronics in and composes new pieces for Sideband, a 10-member professional laptop orchestra ensemble, which Steve Smith of the *New York Times* called "paradoxically visceral, endlessly engaging" in a 2013 review. 2011 – present

Improvises on electronics in exclusiveOr, a duo with Sam Pluta, playing invented instruments and mixing analog and digital synthesis techniques, 2006 – present

Performs on live electronics in The Miz'Ries, a noise trio with Leila Adu on voice and electronic drum pads and Quinn Collins on turntables and effects. 2012 – present

Performs on analog modular synthesizer in the Federico Ughi Quartet, an avant-garde jazz group. 2012 – present

Performs on analog modular synthesizer and pedal steel guitar in Tone Parade, a quintet with Daniel Carter on winds, Federico Ughi on drums, Taylor Levine on guitar, and Quinn Collins on bass. 2015 – present

Performs on vocals, synthesizer, and guitar as electro-country alter ego Owen Lake in Owen Lake and the Tragic Loves, an electronic country band featuring Jeff Snyder arrangements of classic country songs. 2008 – present

Performed live musical accompaniment for three silent films presented by the Film Forum in Princeton with groups exclusiveOr (*The Passion of Joan of Arc*), the Miz'Ries (*Modern Times*), and PLOrk (*Battleship Potemkin*). Presented at the Garden Theater, Princeton, NJ, 2015-2016

Co-curated (with Quinn Collins) "Wet Ink Presents @ Trans Pecos," a series of monthly new music concerts at Trans Pecos in Brooklyn, NY, held from January 2015 to July 2015

Collaborated with video artist Gene Kogan on audio-visual piece "Sunspots 9," presented at Taplin Auditorium in Princeton, NJ, in January 2015

Composed the score to Caroline Jin Key's feature length documentary, "Grace Period," on political issues surrounding sex workers in Korea. Debuted at the DMZ Korean International Documentary Film Festival in September of 2014, and shown at the New Museum in NYC in May of 2015 and the Chicago Underground Film Festival in June 2016

Devised a collaborative work, "Machine Yearning," for laptop orchestra and industrial robot, with Axel Killian and Ryan Luke Johns of Princeton University's Embodied Computation Lab and video artist Gene Kogan. Co-written with and performed by the members of PLOrk April 2014 in Princeton, NJ

Performed on hacked pen plotter in The Draftmasters, an art/music duo with Victor Adan employing pen-plotters from the 1980s as performance instruments, combining live visual art with sound art. 2007-2012.

Performed on electronics in One for the Dark, an improvising trio with Dan Peck on tuba and Pascal Niggenkemper on double bass. 2013-2014

Performed on modular synthesizer in 8PM, a duo with Cenk Ergun on laptop and autoharp. 2012-2014

Performed on analog synthesizer in Jeff Snyder / Eric Wubbels, a duo with Eric Wubbels on computer-controlled cymbals, using a dual-Manta setup. 2011-2013

Performed on analog modular synthesizer in a trio with Kathryn Young and Erica Dickers on bassoon and baritone violin. 2009-2010

Composed the soundtrack for Catherine Czacki's experimental video pieces White Ocean and Blue Ocean. 2008

Composed and created the sound for Gandalf Gavan's installation at Larissa Goldstons Gallery: Back Rooms and Other Places of Public Privacy. 2007

Composed and performed the live soundtrack for Everybody's Different by the Fivefour Dance Group at Joyce Soho in New York, NY. 2007

Composed and performed the live soundtrack for Lunch Date by the Fivefour Dance Group at Chashama in New York, NY. 2007

Co-composed and performed Bang, a piece originally written with Ryan Ross Smith for a performance with choreographer Nora Stephens in 2004. In 2006, Bang was used for a video installation in the Brooklyn Public Library

Composed and created a four-channel soundtrack for Gandalf Gavan's video piece Reflection. 2005

Composed and performed 'Till You Drop, a collaboration with choreographer Nora Stephens exhibited in a storefront window in New York, NY. 2004

Co-created Speak Low, a collaborative installation with Gandalf Gavan, using 500 light bulbs, 4 telephones, and 4 custom-built metallic sound transducers. Installed at Low Library at Columbia University. 2004

Selected Recordings:

Jeff Snyder – Sunspots (2018)
Album of Jeff Snyder's solo electronic works, to be released on Carrier Records in January of 2018

Jeff Snyder and Federico Ughi - Duos (2018)
Album of improvisations on electronics and drum set by Federico Ughi and Jeff Snyder, to be released on 577 Records in 2018

Life Station - Life Station (2016)
Album by an improvising free-jazz quintet featuring Leila Adu, Daniel Carter, Jeff Henderson, Federico Ughi, and Jeff Snyder. Released on 577 Records

Federico Ughi Quartet - Heart Talk (2016)
Album by a free-jazz quartet featuring Jeff Snyder on electronics. Released on 577 Records

The Miz'ries - Complete Control of Your Vehicle (2016)
EP by an improvising noise-pop trio featuring Leila Adu, Quinn Collins, and Jeff Snyder. Released on Belts and Whistles

The Miz'ries - Emotional Performance Motorcycle (2014)
EP by an improvising noise-pop trio featuring Leila Adu, Quinn Collins, and Jeff Snyder. Released on Belts and Whistles

exclusiveOr – Archea (2013)

Improvisations on digital and analog electronics by Sam Pluta and Jeff Snyder. Released on Carrier Records

Wet Ink Ensemble (2009)

Album by contemporary classical ensemble Wet Ink, featuring *Traceries*, a piece composed by Jeff Snyder, performed by Wet Ink Ensemble with Jeff Snyder on electronics. Released on Carrier Records

Cougar – Patriot (2009)

Album by instrumental rock group Cougar, featuring *Endings*, a piece composed by Jeff Snyder, performed by Cougar. Released on Ninjatune Records

The Language Of... (2008)

Compilation album of new experimental music, featuring *Sunspots I, II, and III*, pieces composed and performed by Jeff Snyder on Buchla synthesizer through acoustic resonators. Released on QuietDesign Records

exclusiveOr - ^ (2008)

Album of improvisations on digital and analog electronics by Sam Pluta and Jeff Snyder. Released on QuietDesign Records

Owen Lake – A Love on My Mind (2008)

EP of electro-country arrangements of classic country songs, arranged and produced by Jeff Snyder. Features Jeff Snyder on lead vocals, electronics, and bass. Released on Layered Records

Twin Thousands – Like You A Lot (2007)

Album by indie rock band Twin Thousands, featuring a Jeff Snyder remix of the title track, *Like You a Lot*. Released on Exercise 1 Records

A Million Billion – Volcano Season (2006)

Album by indie rock band A Million Billion, featuring a Jeff Snyder remix of the title track, *Volcano Season*. Released on Exercise 1 Records

The Power-Ups – Live at the Empty Bottle (2004)

Album of Jeff Snyder's original arrangements for rock band of the theme music from classic video games, featuring Jeff Snyder on synthesizer and electric guitar. Self-released

Public Enemy – Revolverlution (2002)

Album by pivotal rap group Public Enemy, featuring a Jeff Snyder remix of *The B-Side Wins Again*. Released on Slam Jamz records

Scattershot – Extrasexual Behavior (2002)

EP of original electro-funk music, written and performed under the pseudonym Scattershot. Self-released

ENGINEERING AND DESIGN

Projects:

Feedback Trombone (2016 – present)

A performance instrument that allows precise control of microphone/speaker feedback inside a trombone

DrumBox (2014 – present)

An embedded drum synthesizer that performs physical modeling synthesis using input from a contact microphone. Designed to be a portable, independent unit, capable of being played in a travelling or marching context

OOPS Audio Synthesis Library (2016 – present)

An audio synthesis library developed in collaboration with Mike Mulshine, with an emphasis on efficiency and a focus on embedded systems

The Birl Controller (2012 – present)

An electronic wind instrument designed to employ artificial neural networks to create more expressive fingering and embouchure control

Ulfur Hansson's Segulharpa (2015 – present)

A collaboration with Icelandic composer/performer Ulfur Hansson. This electromagnetically driven string instrument employs touch sensors to activate the string drivers. I designed the keyboard system and the interface to the driver electronics

MantaMate (2014 – present)

A module designed to interface HID devices and USB-MIDI devices with analog modular synthesizers in the Eurorack format. Includes sequencer functionality when connected to a Manta controller

ElectraSteel (2014 – present)

An electronic instrument based on the performance interface of the pedal steel guitar

Acoustic PLOrk resonators (2012)

Wooden and metallic resonators with integrated amplifiers for the performance of live electronic music

PLOrk FSR boxes (2012)

Small, hand-held controllers for electronic music performance, designed to be musically expressive but inexpensive enough to be made in quantity for a laptop orchestra. Controls include two FSRs, three knobs, four buttons, for computer-controlled LEDs, and a three axis accelerometer

JD-1 (2011 – present)

A keyboard/sequencer controller featuring an integrated high-resolution digital-to-analog conversion system that can accurately control analog modular synthesizers. Includes 32 keys, CNC-milled from aluminum, which act as capacitive touch sensors. Each key has two associated knobs that can be used as arbitrary tuning controls or as stages of a built-in step sequencer. Touching the keyboard can modify the step sequencer functionality. Made from walnut, birch-ply, aluminum, and custom-designed circuitry

Manta (2007 – present)

A touch-sensitive music controller with a hexagonal keypad layout. First presented at NIME 2007 as the MEAPbook, later redesigned for compact size and portability as the Manta. The original production run of sixty Mantas was released by Snyderphonics in May of 2009; more than 150 Mantas have since been sold. The Manta uses capacitive touch sensing and communicates with a multimedia computer using the USB HID protocol. Made from maple or walnut, birch plywood, custom-designed circuitboards, and silicone rubber

Bass Manta and Resophonic Manta Resonators (2008)

Two unique resonators built for the manta. Both are approximately 4 feet high, 2 feet wide, and 2 feet deep. The Bass Manta, inspired by orchestral double-bass construction techniques, includes a carved spruce top-plate, a maple back, a maple bridge, and a maple soundpost connecting the top-plate to the back. The Resophonic Manta uses a spun aluminum cone,

based on the 1920s design of a resophonic guitar by the Dopyera brothers. The cone is fitted to a thin spruce top, and firmly connected to a maple bridge. The back is walnut, but there is no soundpost connection. Both of these resonators use large electromagnets in maple bracing to drive the bridge with speaker-level signals from the Manta

The Birl Electromagnetic Tone Generator (2008-2011)

A tone generator using three electronically-driven stepper motors connected by a timing belt pulley system. The rotation of the motors is sensed by a custom-designed electromagnetic pickup. Therefore, the motors act as mechanical oscillators, and the pitch of the oscillators is in a fixed ratio to the frequency of rotation of the electronically-driven motor. A breath-sensor sets the gain of the output audio, which drives a sitka spruce soundboard affixed to the instrument's resonator. Made from maple, birch and spruce, custom-designed circuitboards, commercial stepper motors, and machined aluminum

Treble and Tenor Contravielles (2005-2009)

Two electronic instruments designed to simulate a string instrument interface. The top-plate on each instrument, designed to be driven by a large electromagnet, allows the whole instrument to act as a resonator for the electronic sound, imparting the individual characteristics of the resonator onto the spectrum of the tone. Pitches are selected by a button grid in a "fretboard"-style layout, and "strings" are plucked by the right hand as it passes across capacitive touch sensors. Made from sitka spruce, birch plywood, pine, custom-designed circuitboards, aluminum and silicone rubber

Fader Controller built for Miya Masaoka (2006)

A custom electronics controller designed and built for sound artist Miya Masaoka, which incorporates several faders and external inputs for infrared sensors and laser-based sensing systems. Made from custom-designed circuit boards in a clear acrylic assembly

Serial-to-CV DAC Box (2005)

A serial-to-CV DAC box designed to interface the Columbia University Computer Music Center's historical analog synthesizers with modern computers. This box allows both the Serge Series 79 synthesizer and the Buchla 100 modules owned by the Computer Music Center to achieve relatively accurate tuning and timing control. Made from custom circuit boards in a steel enclosure with Dakaware knobs

Anolé (2003)

An acoustic string instrument designed in collaboration with visual artist Don Miller, featuring removable just-intonation fret boards and swappable resonators. The instrument can be either plucked or bowed, and allows either electric or acoustic amplification. Made from aluminum, cocobolo, maple, ebony, commercial tuning pegs, and steel strings

SKILLS AND PROFICIENCIES

Computer Programming

C/C++, Max/MSP, ChucK, PD, Javascript, WebAudio, WebGL, some Python

Audio Engineering and Production

ProTools, Reaper, Logic, Waves, Kontakt, Wavelab, Melodyne

Electrical Engineering

Analog circuit design, digital circuit design, layout CAD design, Atmel 8-bit and 32-bit AVR microcontrollers, STM32 ARM microcontroller, Cypress PSOC microcontrollers, Eagle, SPICE modeling, USB protocols, I2C, RS-232, and SPI serial communication, EMI design for multi-layer boards

Mechanical Engineering
Rhino, Sketchup

Woodworking
Table saw, CNC machining (RhinoCAM and raw G-Code), laser cutting, band saw, router,
hand tools

Metalworking
Lathe, manual mill, drill press, hand tools

Music Performance
Live electronics (analog modular synthesizers, custom-built electronics, laptop systems, and
live processing), pedal steel guitar, electric bass, electric guitar, and baritone voice