

Maxwell Tfirm Ph.D.
Curriculum Vitae

Maxwell.tfirm@gmail.com
www.maxwelltfirn.com

ACADEMIC POSITIONS

Christopher Newport University
Lecturer - Director of Composition & Creative Studies (2017 - Present)

EDUCATION

- Ph.D. Composition and Computer Technologies
University of Virginia (2017)
- M.A. Music Composition
University of Virginia (2016)
- M.A. Music Composition
Wesleyan University (2012)
- B.M. Music Education with a Percussion Performance Certificate
University of Florida (2009)

TEACHING EXPERIENCES

Christopher Newport University

- MUSC 200 - Introduction to Music Technology (2017-2018)
- MUSC 315 - Digital Creativity in Music Technology (2017-2018)
- MUSC 411 - Post-Tonal Music Theory (Fall 2017)
- MUSC 415 - Orchestration (Fall 2017)
- MUSC 417 - Studio Production (2018)
- MUSC 014 - Composition Masterclass (2017-2018)
- COMP 131-432 Applied Composition (2017-present)
- MUSC 104 Electronic Music Ensemble (2018-present)

University of Virginia

- MUSI 2120 TA History of Jazz Music (Spring 2016)
- MUSI 3390 TA Introduction to Music and Computers (Fall 2015)
- MUSI 2390/3390 GA Introduction to Music and Computers (Summer 2015)
- MUSI 4543 TA Computer Applications in Music (Spring 2015)
- MUSI 2350 TA Technosonics (Fall 2014)
- MUSI 4543 TA Sound Studio: Producer as Composer (Spring 2014)
- MUSI 3390 TA Introduction to Music and Computers (Fall 2013)
- MUSI 4535 TAMobile Interactive Computer Ensemble (Spring 2013)

MUSI 2350 TA Technosonics (Fall 2012)

Wesleyan University

MUSC 202 TA Theory 2 (Spring 2012)

MUSC 109 TA Introduction to Experimental Music (Fall 2011)

Florida International University

MUC 1342 GA Introduction to Midi Technology (Spring 2011)

MUC 2302 TA Electronic Music 2 (Spring 2011)

MUS 3333 TA Sound Reinforcement (Fall 2010)

OTHER EXPERIENCES

Software Designer for Judith Shatin *Zipper Music* 2019

Organize and Hosted the CNU Contemporary Music Festival 2018 - present

Committee for IDEA Survey Support University Committee 2018 - present

CNU recording internship coordinator 2018 - present

Sound Engineer for Christopher Newport University Music Department 2017 - present

Sound Engineer for CNU Theatre production of *Mr. Burns, a Post Electric Play*

Organized and Hosted the Region III Society of Composers, Inc conference March 24-25 2017

Organized the Christopher Newport University Young Composers Competition 2017-2018

Liaison for Music Department Internships

Do You Hear what I Hear presentation at Living at the Intersections Princeton University 2018

Assistant Director of the New Music Ensemble at the University of Virginia 2016 – 2017

Assistant Director of the UVa Mobile Interactive Computer Ensemble 2013

Assistant Director of the FIU Laptop and Electronic Arts ensemble 2010-2011

Electronics Engineer for Judith Shatin's *Black Moon* 2016 Performed at Carnegie Hall

Software Designer for Chris Luna's *Splatter* 2016

Software Designer for Chris Luna's *Geyser* 2016

Software Designer for Chris Luna's *La Torre de Chitor* 2016

PUBLICATIONS AND RECORDINGS

SEAMUS Electroacoustic Miniatures 2014

Sound Notion 36: Every Light switch Makes a Different Sound

PROJECTS

Spectral Analysis of Non-Periodic Sounds

This research is comprised of software made in Max/MSP that focuses on various ways of looking at sound and how the information can be manipulated and turned into pitch sets. As part of this research the Max/MSP software has 36 possible sound analysis functions and graphs and can work with real-time audio. In addition, the software can calculate prime form, subsets, transpositions, inversion, interval classes and invariant tones of any information.

Sonification of Bacterial Chemotaxis: Do you hear what I hear?

Research advisor and programmer for Justin Peruzzi, recipient of a Harrison Undergraduate Research Grant to study the movement of E. Coli in a medium when an attractant is introduced. This was accomplished through study of video sonification of the motion.

Hearing Images and Seeing Sound: The Creation of Sonic Information Through Image Interpolation

This research focuses on the multi-modal transformation of image into sound. I have developed a suite of tools, called 'Image to Sound Mapping,' in Max/MSP to draw or import an image, transform it into sound, and analyze the resultant spectral content, centroid, flux, loudness and noise.

Clave Pattern

Developed a Max/MSP program for the Kubovy Perception Lab at UVA to test rhythmic identification in spoken sentences. The software plays words and rests its patterns. The task is for the subject to determine the pattern's starting point. The software also saves the answer to all trials.

TEACHING AREAS

Electroacoustic Music Composition, Acoustic Composition, Sound Synthesis, Interactive Electronics, Data Sonification, Analog Electronics, Media Art, Sound Installations, Live Sound, Recording Techniques, Music Technology, Orchestration, Music Theory, Aural Skills, Keyboard Skills, New Music Interpretation, Ensemble Direction

RELATED SKILLS

- Audio programming: Max/MSP, Supercollider, Axoloti, Csound, PVC, Open Music, Tidal Cycles, Usine, AudioMulch, Pure Data, SoundHack, Spear, Praat, Iannix, Orchids, PWGL, Composer Desktop, Project: Soundloom
- Digital Audio Workstations: Digital Performer, Logic, Ableton Live, Reaper, Audition, Amadeus, Garage Band, Audacity, Amadeus Pro, Hydrogen
- Music Notation: Dorico, Finale, Noteability, MuseScore
- Other: Final Cut Pro, Pixel Conduit, Premiere Pro, Nodebox, Gimp, Photoshop, Illustrator

SELECTED PERFORMANCES

2019

- *An Endless Reflection of Sound* for Interactive Electronics and Live Coding
 - Mansfield University New Music Festival, Newport News VA
- *When to Look at the Loss of Humanity*, Wind Ensemble and Live Electronics
 - CNU Contemporary Music Festival, Newport News VA
- *Noise Book* for Interactive Electronic Ensemble
 - CNU Contemporary Music Festival, Newport News VA

- *Apophenia* for Live Coding Ensemble
 - CNU Contemporary Music Festival, Newport News, VA
- *Sigh Interrupt Cycle*, Fixed Media
 - SEAMUS Berklee, Boston MA
 - CNU Contemporary Music Festival, Newport News, VA
- *Unstable Revolutions*, 5 Trumpets and Fixed Media
 - CNU Trumpet Festival, Newport News Va

2018

- *Apophenia*, Live Coding Ensemble
 - CNU Electronic Music Ensemble concert, Newport News VA
- *Sigh Interrupt Cycle*, Fixed Media
 - Electroacoustic Barn Dance, Jacksonville University, FL
- *Invisible Signals* for Open Instrumentation, Electromagnetic Microphone and Computer
 - Society of Composers Region III, Christopher Newport University, VA
- *Foundling*, Wind Ensemble
 - Christopher Newport University, VA
- *Establish Corrupt Broken*, Fixed Media
 - Electroacoustic Barn Dance, Jacksonville University, FL
 - ICMC, Degu, South Korea

2017

- *Definite Failure* for Solo Instrument and Computer Generated Score
 - Digitalis, University of Virginia, VA
- *Establish, Corrupt, Broken* for Fixed Media
 - National Students in Electronic Music Event, Louisiana State University, LA
- *Garden of Temptation and Being*
 - Society of Electro Acoustic Music in the United States, St. Cloud State University, St. Cloud, MN

2016

- *Establish, Corrupt, Broken* for Fixed Media
 - University Tea Time Recital, Charlottesville, VA
- *From Noise Comes Being* for Axoloti, Computer and Analog Electronics
 - Electroacoustic Barn Dance, University of Mary Washington, Fredericksburg, VA
- *Invisible Signals* for Open Instrumentation, Electromagnetic Microphone and Computer
 - Technosonics XVII, University of Virginia, Charlottesville, VA
 - University Tea Time Recital, Charlottesville, VA
- *No Harm Shall Come to Others*
 - A Concert of Electroacoustic, Electronic and Multimedia Works, University of International Business and Economics, Beijing, China
- *Thixotropy* for 2 Computers or Assortment of Electronics
 - TomTom Festival, Charlottesville, VA

- Digitalis, Charlottesville, VA
- *The Body of Sound* for 2 Computers
 - TomTom Festival, Charlottesville, VA
- *Cherry Blossom & Blood* for Mixed Ensemble and Interactive Computer
 - University of Virginia New Music Ensemble, Charlottesville, VA
- *Inter Diabolus et Virgo* for Interactive Computer
 - Hack Cville, Charlottesville, VA
- *Dying Stars Bring Light to a Dark Sky* for Fixed Media
 - Society of Composers Regional Conference, Marshall University, Huntington, WV
- *5 Image Interpretations* for String Quartet
 - Jack Quartet, University of Virginia
- *Burning Shrine Crumbles* for Multi Percussion Duet
 - Kenneth Broadway Faculty Recital, University of Florida, Gainesville, FL

2015

- *Lament to Millions of Lost Souls* for Fixed Media
 - Technosonics XVI, University of Virginia, Charlottesville, VA
- *Tri Voice Duality* for Voice Trio
 - Bucknell University, Lewisburg, PA
- *Dying Stars Bring Light to a Dark Sky* for Fixed Media
 - Electroacoustic Barn Dance, University of Mary Washington, Fredericksburg, VA
- *Inter Diabolus et Virgo* for Interactive Computer
 - South Central Graduate Music Consortium, University of Virginia, Charlottesville, VA
- *Life of Astronaut* for Interactive computer and narration
 - Digitals, University of Virginia, Charlottesville, VA
 - TomTom Festival, Charlottesville, VA
- *The Garden* for Baritone Voice, Trombone, Bass Clarinet and Trumpet
 - Loadbang, University of Virginia, Charlottesville, VA
- *Burning Shrine Crumbles* for Multi Percussion Duet
 - Society of Composers National Conference 50th Anniversary, Gainesville, FL
 - Meehan, Perkins, University of Virginia, Charlottesville, VA
- *When Chaos Shrouds Utopia* for Solo Multi Percussion
 - I-Jen Fang, University of Virginia, Charlottesville, VA
- *The Conception of Chaos* for Saxophone Quartet
 - Fifteen Minutes of Fame performed by New Thread Quartet, New York, NY

2014

- *91o(X) F[+X]F[-X]+X* for Interactive Computer
 - International Computer Music Conference, Athens, Greece
- *Story of My Lover* for Voice and Live Electronics,
 - Digitalis, University of Virginia, Charlottesville, VA
 - UVa Composers Showcase, University of Mary Washington, Fredericksburg, VA
- *Limited Aggregation* for Multi Percussion and Computer
 - Technosonics XV, University of Virginia, Charlottesville, VA
- *Pain as Told by the Prophet* for SATB Voice

- Ekmeles, University of Virginia, Charlottesville, VA
- *Shifting Spaces* for Piano
 - Seung-Hye Kim, University of Virginia, Charlottesville, VA

2013

- *Broken Skyline, Horizontal and Vertical Views, Abstract Overlay* for Fixed Media and Video
 - VAST Exhibition, Venice, Italy
- *Purgatory* for Bassoon
 - South Central Graduate Music Consortium, Duke University, Durham, NC
 - Tea Time Recital, University of Virginia, Charlottesville, VA
- *No Harm Shall Come to Others* for Fixed Media
 - National Students in Electronic Music Event, Temple University, Philadelphia, PA
 - Electroacoustic Barn Dance, University of Mary Washington, Fredericksburg, VA
- $15^{\circ}(A)A+C[F], F+[D]-[G+A]F, A-[F+C]+B, F<F[FA], F+<A-B[C+D], D[A-F]<E, E<[A]+F[B-D]$ for Interactive Computer
 - Digitalis, University of Virginia, Charlottesville, VA
- *Entanglement* for Electric Guitar Quartet
 - Dither, Christ Episcopal Church, Charlottesville, VA

2012

- $91^{\circ}(X)F[+X]F[-X]+X$ for Interactive Computer
 - Issue Project Room Share, Brooklyn, NY
- *A Meeting of Florets* for Prepared Piano
 - Graduate Recital, Wesleyan University, Middletown, CT
- *Florets* for Laptop Ensemble
 - Issue Project Room Share, Brooklyn, NY
 - Graduate Recital, Wesleyan University, Middletown, CT
- *Meditation of a Tree* for Fixed Media
 - Graduate Recital, Wesleyan University, Middletown, CT
 - Florida Electro Acoustic Student Festival, Florida International University, Miami, FL
 - Graduate Recital, Wesleyan University, Middletown, CT
- *Dystopia* for Laptop Ensemble
 - Technosonics XIII, University of Virginia, Charlottesville VA
 - Humanities Week at Dawsons Row No.2, University of Virginia, Charlottesville, VA
- $32^{\circ}(F+F) F[+F][-F]F[-F[-F][+F]F]$ for Interactive Electronics
 - South Central Graduate Music Consortium, University of Virginia, Charlottesville, VA
 - Graduate Recital, Wesleyan University, Middletown, CT
 - Society of Electro Acoustic Music in the United States, Lawrence University, Appleton, WI
- *Sounds of Auditory Hallucination* for Voice and Interactive Computer
 - Graduate Recital, Wesleyan University, Middletown, CT

2011

- *Meditation of a Tree*

- Graduate Composers Recital, Wesleyan University, Middletown, CT
- Wesleyan University Center of the Arts, Wesleyan University, Middletown, CT
- *Dystopia* for Laptop Ensemble
 - 12 Nights Festival of Electronic Music and Arts Series, Miami, FL
- *32o(F+F) F[+F][-F]F[-F[-F][+F]F]* for Interactive Computer
 - Graduate Composers Recital, Wesleyan University, Middletown, CT
 - Electro-Bonanza, Florida International University, Miami, FL
- *Sounds of Auditory Hallucination* for Voice and Interactive Computer
 - Subtropics Music Festival, Miami, FL
 - FIU Composers Recital, Florida International University, Miami, FL

2010

- *Sounds of Auditory Hallucination*
 - Electro-Bonanza, Florida International University, Miami, FL

2009

- *The Village of Small People and Animals* for Flute and Bass Flute
 - University of Florida Society of Composers Chapter, Gainesville, FL
- *Week* for Fixed Media
 - Florida Electro Acoustic Student Festival, Florida International University, Miami, FL

2008

- *Bow Shock* for Marimba and Interactive Computer
 - Unbalanced Connection Concert, University of Florida, Gainesville, FL

INSTALLATIONS

2016

- *Audio Faces*, Dell Building 1, University of Virginia, Charlottesville, VA

2015

- *Reflective Catacombs*, Technsonics XVI, University of Virginia Old Cabell Hall Catacombs, Charlottesville, VA

2014

- *Reflective Tunnel*, Society for Electro-Acoustic Music United States, Wesleyan University Tunnels, Middletown, CT

2012

- Circuit Bent Jungle sound installation, Florida International University, Miami, FL

SELECTED COMPOSITIONS

An Endless Reflection fo Sound for Interactive Electronics and Live Coding ~20:00
When to Look at the Loss of Humanity for Wind Ensemble and Live Electronics ~7:00
Unstable Revolutions for 5 Trumpets, Fixed Media and Video 6:45
Apophenia for Live Coding Laptop Ensemble (2018) ~8:00-9:00
Sigh Interrupt Cycle for Fixed Media (2018) 7:00
Founding for Wind Ensemble and Soprano (2017) 8:00
Definite Failure for Solo Saxophone and Live Score Generation (2017) 7:00-10:00
Invisible Signals for Open Instrumentation, Computer and Electromagnetic Microphone (2016) ~10:00
From Noise Comes Being for Interactive Electronics (2016) ~7:00
Establish, Corrupt, Broken for Fixed Media (2016) 7:37
Thixotropy collaborated with Veronica Lam, for 2 People with Electronics (2016) ~10:00
Cherry Blossom & Blood for Open Instrumentation, Narrator and Computer (2016) ~ 8:00
5 Image Interpretations for String Quartet (2015) ~ 7:00
Lament to Millions of Lost Souls for Fixed Media (2015) 120:00
Inter Diabolus et Virgo for Interactive Computer (2015) ~8:00
The Garden for Bass Clarinet, Trumpet, Bass Trombone and Baritone Voice (2015) 5:34
Dying Stars Bring Light to a Dark Sky, Fixed Media (2014) 5:27
Limited Aggregation collaborated with Seung-Hye Kim for Multi Percussion and Computer (2014) 8:14
Burning Shrine Crumbles for Percussion Duet (2014) 5:30
When Chaos Shrouds Utopia for Multi-percussion (2014) ~8:00
When Will the Destruction End? Fixed Media (2014) 1:02
The Conception of Chaos for Saxophone Quartet (2014) 1:00
Shifting Spaces for Solo Piano (2014) 7:04
Traversing Eternity for Piano, Violin, Cello and Computer (2013) 24:00
Small Groups of People Bring Collapse for Laptop Ensemble (2013) 6:45
Pain as Told by the Prophet for Voice Quartet and Computer (2013) 8:05
Purgatory for Solo Bassoon (2013) 8:00
X>pow(10,-4) for Fixed Media (2013) 2:08
No Harm Shall Come to Others for Fixed Media (2012) 7:04
Entanglement for Guitar Quartet (2012) 7:24
91.(X)F[+X]F[-X]+X,F for Interactive Computer (2012) Time Range 5:00 – 15:00
Meditation of a Tree for Fixed Media (2011) 9:50
32o(F+F) F[+F][F[-F]F[-F][F][+F]F] for Interactive Computer (2010) Time range 5:00 – 15:00

PROFESSIONAL MEMBERSHIPS

Society of Composers, Inc (SCI)
Society of Electro-Acoustic Music in the United States (SEAMUS)
American Composers Forum
Broadcast Music Incorporated
Vox Novus

