# ELI STINE, PhD

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# **EDUCATION**

#### **University of Virginia** (Jefferson Fellow)

May 2019

PhD and MA, Music Composition and Computer Technologies

## **Oberlin College & Conservatory**

May 2014

BM, Technology in Music and Related Arts BA, Computer Science

## PROFESSIONAL EXPERIENCE

Meta 2022-Present

Software Engineer IV, Reality Labs-Research, Audio Presence

- Supported multimedia experiences of audio research presented to VPs, CTO, and CEO
- Contributed to spatial audio projects for next-gen wearable tech that led to 3+ product-level tech transfers (WhatsApp, Meta Quest 3 Headset, Ray-Ban® Meta Smart Glasses)
- Coded telepresence app with live geometric acoustics, 94% experienced copresence
- Wrote perception testing app for multimillion-dollar facility used on 80+ participants

#### **Oberlin Conservatory**

2019-2022

Visiting Assistant Professor, Technology in Music and Related Arts

- Taught self-designed courses on music technology with 100% positive evaluation, maintained studio of 20 students, instructing composition and professional development
- Published research in 12 international conferences/festivals
- Programmed ObieVerb, concert hall reverb simulator, used by 200+ students

Goethe Institute 2018-2021

Audio Programmer, Sound Designer

- VRWandlung, VR adaptation of Kafka's Metamorphosis, toured 35 countries, 150+ articles
- The Infinite Library, VR installation, 15+ cities, official selection of London Film Festival

Frame Rate Oy 2020-Present

Audio Programmer, Sound Designer

• MUT-AT1-ONS, motion reactive audio-visual experience, sponsored by Genelec (\$40,000+) and installed at Sideways Festival and Helsinki Museum of Technology

#### University of Virginia

2015-2019

Instructor & Teaching Assistant, Composition & Computer Technologies

- Taught self-designed courses on music technology, theory, and production
- Sourced \$35,000+ in grants from UVA Arts Council, Environmental Sciences Department, and Institute for Humanities and Global Cultures

# AWARDS, INVITED RESIDENCIES

# Awards Finalist, Métamorphoses Acousmatic Composition Contest Jefferson Fellowship, Jefferson Scholars Foundation UVA Arts Council Annual Fund for the Arts Grant Dean's Scholarship Award, Oberlin Conservatory 2014-2019 2015-2017 2009-2013

M&R Crawley Scholarship, Oberlin Conservatory 2009-2013 SEAMUS Allen Strange Undergraduate Excellence Award 2011

#### **Invited Residencies**

Coastal Futures Conservatory Installation at Barrier Islands Center	2019
Anheuser-Busch Coastal Research Center	2018
Atlantic Center for the Arts, associate artist, with Natasha Barrett	2016
Spatial Music Workshop at Virginia Tech ICAT	2016
Banff Centre for Arts and Creativity Residency	2014
Atlantic Center for the Arts, associate artist, with Judith Shatin	2013
Detroit Chamber Winds & Strings, Young Composer-in-Residence	2012

#### PUBLISHED SCHOLARSHIP

- Melody Jue, Anya Yermakova, Jacob Cram and Eli Stine, "Invisible Kelp Forest: From Smell to Sound." Plant Perspectives, vol. 1, no. 1, 2024: 89–203.
- Dirk Roosenberg, Eli Stine, and Romain Michon, "A Wave-Digital Modeling Library for the Faust Programming Language." in *Proceedings of the 2021 Sound & Music Computing Conference*: 24-30.
- Eli Stine and Christopher Luna-Mega, "Musical Aesthetics of the Natural World: Two Modern Compositional Approaches." in *Jefferson Journal of Science and Culture* 5 (2019): 21-32.
- Eli Stine, "Creating Immersive Electronic Music from the Sonic Activity of Environmental Soundscapes." in *Joint Proceedings of the ACM Intelligent User Interfaces (IUI) 2019 Workshops* (Los Angeles, California).
- Eli Stine and Kevin Davis, "The Murmurator: A Flocking Simulation-Driven Multi-Channel Software Instrument for Collaborative Improvisation." in *Proceedings of the 2018 International Computer Music Conference* (Daegu, Korea), 81-86.
- Fernando Rocha and Eli Stine, "Estilhaço 1 & 2: Conversations between Sound and Image in the Context of a Solo Percussion Concert" in Proceedings of the 2016 International Symposium on Computer Music Multidisciplinary Research (CMMR) (Sao Paolo, Brazil): 247-255.

#### PUBLISHED COMPOSITIONS

- Eli Stine, "Invisible Kelp Forest: From Smell to Sound" in *Plant Perspectives*, vol. 1, no. 1, White Horse Press, 2024.
- Eli Stine, "Where Water Meets Memory" in Music from SEAMUS Vol. 32, 2023.
- Eli Stine, "Where Water Meets Memory (Coastal Mix)" in *Soundscapes of Restoration: Music, Sonifications and Field Recordings.* Coastal Conservatory 2022.
- George Lewis, Dana Jessen. Eli Stine (electronics), "George Lewis: The Recombinant Trilogy." New Focus Recordings (FCR284), 2021.
- Eli Stine, "Ring | Axle | Gear" in the International Computer Music Association Annual Compilation DVD, 2015.
- Eli Stine, "Life", in the Vox Novus 60x60 Voice Mix, 2012.

## SELECT COMPOSITIONS

- Where Water Meets Memory (full 3D fifth-order higher order ambisonics), Finalist of the 2022 Métamorphoses Acousmatic Composition Contest, 2022 New York City Electroacoustic Music Festival (NYCEMF), 2022 Society for Electroacoustic Music in the United States (SEAMUS), 2022
- No Where (octophonic acousmatic), 2020 International Computer Music Conference, 2019 San Francisco Tape Music Festival, San Francisco, California, Digitalis 2018, Charlottesville, Virginia
- The Murmurator (biologically-inspired software instrument), performed by the developer, 2018 International Computer Music Conference (ICMC), Daegu, South Korea, 2018 CubeFest, 2018 New Interfaces for Musical Expression (NIME) Conference, Blacksburg, Virginia, 2019 Society for Electroacoustic Music in the United States (SEAMUS), Boston, Massachusetts
- Six Settings (saxophone quartet), for New Thread Quartet, University of Virginia Ensemblein-Residence Concert, Charlottesville, Virginia, Spectrum, New York, New York, 2018
- Lumina Sound Installation (hexaphonic sound design for sculpture), with Melissa Goldman, UVA Architecture Professor, Technosonics Festival XVIII: DIY, Charlottesville, Virginia, 2018
- Elements (string quartet and electronics), for JACK Quartet, featured on the Score Follower YouTube channel (2022), University of Virginia Ensemble-in-Residence Concert, Charlottesville, Virginia, 2016
- Rust (stereo acousmatic), Third Practice Festival, Richmond, Virginia, Society for Electroacoustic Music in the United States (SEAMUS) conference, Eugene, Oregon, 2015
- Transference (interactive audio-visual performance), performed by composer, 2014 New Interfaces for Musical Expression, Ann Arbor, Michigan, 2014 Third Practice Festival, Richmond, Virginia, 2014
- *Life* (stereo acousmatic), Vox Novus *60x60 Voice Mix*, Texas State University, San Marcos, Texas, 2012
- Moments (quadrophonic acousmatic), Society for Electroacoustic Music in the United States (SEAMUS) conference, Miami, Florida, International Computer Music Conference (ICMC), Huddersfield, United Kingdom, 2011

#### SELECT SOUND DESIGN

- MUTAT10NS (interactive sound tunnel), music composition, interaction programming, sensor fabrication, with Framerate oy, installed at the 2022 Sideways Festival in Helsinki, Finland (25,000 attendees) and the Museum of Technology for 6 weeks, in partnership with Genelec, 2022-2028
- The Infinite Library (virtual reality installation and experience), with Daisy with Rider and High Road Stories, Goethe Institut Delhi, installed in Delhi, Bangalore, and currently touring Europe (Dublin, Prague), 2021-2022
- The Republic of Dreams (immersive sound installation), sound design, with Mika Johnson, Adam Mickiewicz Institute, Poland, installed in Warsaw, Kiev, and Buenos Aires, 2021
- Lost in a Forgotten Place (stereoscopic VR/360-degree short film), sound design, with Mona Kasra, (Winner of Best VR Film at the 2020 Avanca International Film Festival (Portugal), selection of the 2020 Miami International Science Fiction Film Festival, 2019 Virginia Film Festival, 2020 VASTLAB Film Festival (Los Angeles)), 2019
- VRWandlung (virtual reality museum installation of Kafka's Metamorphosis), sound design and programming, with Mika Johnson, Goethe Institut, Prague, Czech Republic, installed in 50 cities in 35 countries, featured in 150+ news outlets, 2017-2019
- Sunburst Farms (commercial spot), sound design, with Fancy Rhino Productions, (featured in USA Today), 2014

- Durkan Carpet and Flooring (commercial spot), sound design, with Fancy Rhino Productions, 2014
- Found (trailer), music, with Stefan Grube (Paramount Pictures), 2011
- The Amerikans (web series), music and sound design, with Mika Johnson, (screened Ohio, Japan, NYC, 500,000+ global views) 2010-2014

#### SELECT VIDEO DESIGN

- through a fragile traverse (video art, bassoon, and electronics), with Dana Jessen, commissioned by the 2020 Soup & Sound concert series in NYC, shown at TIME:SPANS 2022, SEAMUS 2021, Earth Day Art Model 2021, Bang on a Can 2021, New Music Gathering 2021
- Vestigial Wings (video art and higher-order ambisonics (full 3D 5th order HOA)), shown at SEAMUS 2020, International Computer Music Conference and New York City Electroacoustic Music Festival, 2019
- Angels / Over Exposure (interactive video art installation), video programming, with Ted Coffey, Let There Be Light Video Installation Festival, Scottsville, Virginia, 2017
- Estilhaço I + II (interactive video art for percussion performance), with Fernando Rocha, hyper-kalimba + percussion, Computer Music Multi-Disciplinary Research Symposium, Sao Paolo, Brazil, 2016
- Ring | Axle | Gear (video art), shown at New York City Electroacoustic Music Festival, New York, New York, International Computer Music Conference, Denton, Texas, and Audible Bits/Visible Bytes, Leicester, United Kingdom, 2014
- Hymn by Kati Agócs (video art) for AM/PM saxophone quartet, performed by Prism Quartet, AM/PM Sax Quartet, Quadrophonic Sax Quartet, 2011-2018

# **INVITED PRESENTATIONS**

- "Music and Sound in Digital Games: History, Building Blocks, and Modern Techniques." University of Oregon, Eugene, OR, 2/22/24
- "Musical Artificial Intelligence: Basic Principles, History, and Interactive Sound Examples." Oberlin Conservatory, Oberlin, OH, 2/15/24
- "Machine Learning for Sound Generation and Processing in Cycling '74's Max Programming Language." Patchwerks, Seattle, WA, 3/25/23
- "Modeling Natural Systems in Immersive Electroacoustic Sound." Rhode Island School of Design, Providence, RI, 7/22/22
- "Composing Extended Media: Immersive Audio, Mixed Reality, Digital Instruments, and More." University of Chicago, Chicago, IL, 3/2/22
- "Panel on Electroacoustic Music & The Visual Medium." 2022 SPLICE Institute, Kalamazoo, MI, 6/27/22
- "Bird Call: Studies and Actions Dedicated to Biodiversity", installation of shorebird sonification software, with Becky Brown, Freyberger Gallery, Penn State Berks, 5/2/22-5/15/22
- "Telling the Story of Bioacoustic Research via Multi-Channel Electroacoustic Music." 2020 Spatial Music Workshop Reunion, Virtual, 8/10/20
- "Creating Immersive Electronic Music from the Sonic Activity of Environmental Soundscapes." 2019 Intelligent User Interfaces Conference, Los Angeles, California, 3/20/19
- "The Murmurator: A Flocking Simulation-Driven Multi-Channel Software Instrument for Collaborative Improvisation." 2018 International Computer Music Conference, Daegu, South Korea, 8/8/18
- "Composing Sound + Space: Spatio-Musicality + The Design of Sonic Space." East Carolina University, Greenville, North Carolina, 4/20/18

- "Artistic Engagement with Data: Sound + Space." University of Virginia School of Architecture, Charlottesville, Virginia, 4/5/18
- "Methods of Sound Organization + Deconstruction." Guest lecture in MUS 385: Electronic Music. Hampden-Sydney College, Hampden-Sydney, Virginia, 3/27/18
- "Introduction to Processing." Lecture in EGMT 1530: New Media Art in the Age of Global Networks. University of Virginia, Charlottesville, Virginia, 2/22/18
- "The Murmurator: A Flocking Simulation-Based Spatializer." James Madison University, Harrisonburg, Virginia, 11/14/17
- "Investigating a Framework on Artistic Uses of Large-Scale Multi-Channel Audio and Video Technologies." Sounding Out the Space conference, Dublin, Ireland, 11/2/17
- "Estilhaço 1 & 2: Conversations between Sound and Image in the Context of a Solo Percussion Concert." International Symposium on Computer Music Multidisciplinary Research, Sao Paolo, Brazil, 7/6/16
- "Audio-Visual Art: History, Present, and Future." Guest Lecture in MUS3071: Composition Seminar. University of North Carolina School of the Arts, Winston, North Carolina, 11/20/15

#### **SERVICE**

Society for Electroacoustic Music in the United States Journal Editor-in-Chief	2019-2022
International Society of Music Information Retrieval Conference Reviewer	2021-2022
New Interfaces for Musical Expression (NIME) Conference	2021
Reviewer National Student Electronic Music Event (NSEME)	2018
Paper Chair Sound and Music Computing (SMC) Conference	2018
Reviewer	2018
ASCAP/SEAMUS Award Reviewer	2018
UVA Composition and Computer Technologies Mentorship Program Lead Organizer	2015-2017

#### **TECHNICAL SKILLS**

#### Media

Audio: REAPER, Ableton Live, Logic, Pro Tools, Reason

Video: Jitter, Unity, Processing, Adobe Suite, Cinema 4D, Blender Code: Max for Live, Pure Data, Csound, Super Collider, FMOD, WWISE

Plug-ins: Waves Suite, FabFilter, Izotope RX/Ozone, Guitar Rig, Reaktor, Kontakt, Omnisphere, Arturia V Collection, IEM Ambisonics, ATK, spat5~, and more

#### **Programming**

Max, C#, C++, Matlab, Python, Javascript

#### PROFESSIONAL AFFILIATIONS

Phi Beta Kappa, Society of Composers, Inc. (SCI), Society for Electro-Acoustic Music in the United States (SEAMUS), American Society of Composers, Authors, and Publishers (ASCAP), Association for Computing Machinery (ACM)