

Curriculum Vitae

Education:

- PhD - Virginia Tech Blacksburg, Virginia - Interdisciplinary PhD in Visual Arts, Musical Arts, and Computer Science. Research and Creative Practice topic: Holophony, Pseudo Holography, and High-Performance Computing Toward Visual Music Composition - Practice-Based Research - Summer 2018 – Fall of 2020
- BFA - Virginia Tech School of Visual Arts - Blacksburg, Virginia, BFA in Creative Technologies - Honors College - Summa Cum Laude - Honors Scholar - Certificate for Excellence in Undergraduate Research – Fall 2015 – Spring 2018
- Indiana/Purdue University Fort Wayne, Indiana 2004 – 2015
~40 hours toward a Computer Science curriculum

Grants, Scholarships, Awards:

- Dean & Rosina Carter Honors Scholarship - \$1500
- 2 Grants – \$500 each for travel to 2016 NYCEMF
- ICAT SEAD Grant - \$500 Fall 2016 (PI) for Imagined Realities Concert in the Cube at VT
- Excellence in Undergraduate Research Certificate – Spring 2017
- Honors College Enrichment Grant – \$1000 for travel to 2017 NYCEMF
- ACC Innovation and Creativity Grant - \$2000 Summer of 2017 for building a Super Computing Cluster for Rendering
- ICAT SEAD Grant - \$500 Spring 2018 (PI) for Second Body Awareness Installation in the Cube at VT

Employment:

- Ball State University – Lead HCI, Extended Reality, and Audio Researcher in the Institute for Digital Intermedia Arts (IDIA Lab)
2019 - Present
- Budd Group/Novozymes Biologicals - Facilities Maintenance Manager
2015 – 2019
- Sweetwater Sound - Network Administrator
2001 – 2014

Teaching Experience:

- Primary Instructor of Record – College of Communication, Information, and Media, Ball State University – FALL 2024, CCIM 220 – Introduction to Extended Reality (Online, Asynchronous)

- Primary Instructor of Record – College of Communication, Information, and Media, Ball State University – Spring 2024, CCIM 220 – Introduction to Extended Reality (Online, Asynchronous)
- Guest Lecturer: Dr. Charles Nichols' Csound class at Virginia Tech - MUS 3066 Computer Music and Multimedia - March, 2023
- Guest Lecturer: Dr. Charles Nichols' Csound class at Virginia Tech - MUS 3066 Computer Music and Multimedia - April 18th and 29th, 2021
- Guest Lecturer: Professor Zachary Duer's Visual Music class at Virginia Tech – ART 4514 – November 12, 2020
- Guest Lecturer: Dr. Charles Nichols' Csound class at Virginia Tech - MUS 3066 Computer Music and Multimedia - March 21st and 28th, 2019
- Two classes in Steve Harrison's HCI (graduate level) class at Virginia Tech – Semiotics and Embodied Cognition – Fall 2018

Major Lectures:

- CAAV 2023 International Conference at BSU, 10.25.2023 – Recontextualizing Data Visualization Toward Data Realization
- IRCAM Forum at NYU, 10.01.22 - 30 minute lecture: Kinetic Relationships in Visual Music Composition: Interactive Changes Over Time - NYU Steinhardt Education Building, 35 W 4th St, New York, NY
- Virginia Tech PhD Defense 10.29.20– 45-minute lecture: Antitheses: Intricately Interlaced Methodologies Toward the Composition of Holochoric Visual Music
- SEAMUS 2020 – University of Virginia in Charlottesville (conducted remotely) - Exploring the Nexus of Holography and Holophony in Visual Music Composition
- NSEME 2020 – Student Led Conference - University of Illinois Champagne-Urbana – Exploring the Nexus of Holography and Holophony in Visual Music Composition
- International Csound Conference, Berklee College of Music in Boston – 2014
- Toronto Electroacoustic Symposium – 2014
- Harvest Moon Festival, Concordia University Montreal – 2009
- SEAMUS National Conference, San Diego State University – 2004
- MapleCreek Middle School (6 talks) – 2003

Publications:

- Journal SEAMUS – Volume 30, Number 1-2, December 2023 – Kinetic Relationships in Visual Music Composition: Interactive Changes Over Time
- Leonardo Music Journal – Volume 30 December 2020 Issue – Exploring the Nexus of Holography and Holophony in Visual Music Composition

- CEC eContact! 16.3 2014 – Hadronized Spectra: The LHC Sonifications (Interactive version on Rhoades web site)
- Journal SEAMUS 2005 Vol. 18 no.1 – Azimuth: Algorithmic Score Synthesis Techniques (Interactive version on Rhoades' web site)

Software Proficiencies:

- Csound
- Max
- Maya
- Blender
- Unity
- Arduino
- Adobe Suite - Premiere Pro, After Effects, Photoshop, Illustrator
- Cakewalk Pro Audio
- Sound Forge
- Oculus
- Focusrite
- MS Office – Excel, Word, PowerPoint
- RealSense and NuiTrack SDKs
- Extensive Web Development

Music Compositions:

- 25 – CD Projects / 250+ Electroacoustic Music Compositions

Oil Paintings:

- 400+ oil paintings

Visual Music Compositions:

- Beyond Context
- Hyperspace
- Into Crystal Lattices
- Time as Oscillations
- Embodied Cognition – 4 Interrelated Holochoric Visual Music Compositions
- Antitheses – Seven Interrelated Holochoric Visual Music Compositions
- Second Body Awareness (Holographic/Holophonic)
- Ice Cube Windows (projection mapping on Moss Art Center at VT)
- Crystal Verse
- Pixelated Planes
- Cylindrical Dimensions
- Apparitions

- Reflections and Refractions
- Event Horizon
- Voice in the Forest
- Cygnus Loop

Recent Activities:

- February 2024, Michael's visual music composition, "Into Crystal Lattices" was presented in the BSU Music Department concert: EM|Three. The concert took place in Sursa Performance Hall.
- La Hora Acusmática virtual concert series August 18th, 2023 – "Inside the Crimson Castle (an Escher Multiverse) presented.
- ICMC 2023 - Acted as adjudicator for papers
- NYCEMF 2023 – New York City – of the Dazzling Darkness (visual music composition) – Also acted as adjudicator for visual music compositions
- March 30th, 2023 – Michael's 7 Antitheses project, in its entirety, was installed in the Charles W. Brown Planetarium at Ball State University.
- SAT Festival 2022 – Montreal Quebec – Full Dome version of Inside the
- Napoleon Electronic Media Festival 2023- Eastern Illinois University, Charleston, IL - Bending Glass Walls
- NYCEMF 2022 – New York City – Inside the Crimson Castle (An Escher Multiverse) – Also acted as adjudicator for visual music compositions
- SAT Festival 2022 – Montreal Quebec – Full Dome version of Inside the Crimson Castle (An Escher Multiverse)
- NYCEMF 2021 – (Virtual) New York City – Bending Glass Walls Visual Music Composition – Also acted as adjudicator for visual music compositions presented for consideration for performance at the conference.
- SEAMUS 2021 – (Virtual) University of Virginia – Inside the Crimson Castle: An Escher Multiverse Visual Music Composition (2D Version)
- NSEME 2020 – University of Illinois Champagne-Urbana – Pedal and Branch Visual Music Composition (2D version)
- NYCEMF/ICMC 2019 – Held n Manhattan, New York City
- Apparitions – 2018 EaSt Concert Series at Concordia University, Montreal.
- Reflections and Refractions – EMM 2018 at Lewis University, near Chicago.
- Crystal Verse - NYCEMF 2018 held in Manhattan, New York City.
- A Hot Jupiter - Cube Fest 2018 "Sounds in Focus" - Perform Studio at Virginia Tech.
- Apparitions" - Germany at the Festival NEUE MUSIK LÜNEBURG. Elektroakustische Musik aus New York City - 2017