

# Jason E Geistweidt

## Curriculum Vitae

Contact

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Recent Positions

*Assistant Professor*, Department of Media Study (Current)  
The State University of New York at Buffalo

*Clinical Assistant Professor*, Department of Media Study (2017 - 2020)  
The State University of New York at Buffalo

*Visiting Professor*, The Department of Human Centered Design & Engineering (Summer 2017)  
The University of Washington at Seattle

Education

*Doctor of Philosophy*, Electroacoustic Composition

*The Sonic Arts Research Centre*, Queens University Belfast

Advisor: Professor Michael Alcorn

Examiners: Prof. Simon Waters (University of East Anglia) and Dr. Pedro Rebelo (QUB)

*Masters of Arts*, Music Technology (Performance)

*The Centre for Computational Musicology and Computer Music*, The University of Limerick

Awarded First Class Honors

Examiner: Dr. Daniel Oppenheim

*Bachelor of Music, Music Education*

Southwestern University, Georgetown, Texas

Postdoctoral  
Research

*VERDIONE/The World Opera Project, The University of Tromsø, Norway*

This practice-based research focused on the development of a distributed network of intelligent World Opera Stages. As a collection of performance sites distributed throughout the world, these stages embed the technology necessary to mediate time and space through dedicated high-bandwidth communication networks. The project demonstrated the feasibility of connecting distributed participants across great distances to achieve interactive performances within the modality-rich contexts of opera, theatre, and dance.

Graduate Courses

*Physical Computing*

This course introduces basic concepts and techniques for designing, constructing, and programming objects, spaces, and media that sense and respond to their physical surroundings. Eschewing the paradigm of screen-keyboard-mouse, this course seeks alternative modalities — such as light, sound, and touch — for creating interactive experiences.

*Networked Media*

This course covers concepts, techniques and methods for working creatively with networked media systems. Topics range from creating online media for the web to working with embedded networked systems and IoT platforms. Workshops organized around client-and server-side technologies including HTML, CSS, JavaScript, SQL, node.js, and network APIs.

*Programming Media Systems*

This special topics course is designed to investigate the interconnections between various digital media as negotiated through the conduit of computation/programming. Participant conduct systematic intermedia investigations combining audio, visual, textual, haptic, and external control elements within the context of developing a personalized, bespoke toolkit for creative research.

*Experimental Sound Studio*

This studio introduces strategies and techniques for creating, organizing, and deploying sound within a real-time, experimental context. Topics include basic synthesis, micro-sound, time- and frequency-based transformations, interface design, and circuit bending. Students collaborate to build hybrid digital/analog instruments and perform original sonic acts throughout the semester.

*Code + Space*

This graduate design research workshop investigates the interweaving of code and space within the built environment through project-based experimentation. It introduces basic concepts and techniques for creating objects, spaces and media that sense and respond to their physical surroundings.

*Electronics and Computers in Music*

This open-enrollment undergraduate seminar offers students from across the university an introduction to the history, theory, and practice of music-making with electronics and computers. The rich and unique influence of technology on music, past, present, and future will be discussed. We will study the pioneers who developed many of techniques commonly used in contemporary music while exposing students to the experimental and avant-garde composers, sound engineers, instrument builders, and inventors of the 20th century.

*Machines, Codes, and Cultures*

This course will follow the history of machines and coding systems from the invention of early tools and agriculture to the origins of language, numeric notation, and computational media. An overview of concepts related to tools and technologies that have – and continue to – substantially impact our daily lives, defining the space and scope of what it means to be human are presented, focusing on the cultural aspects of technologies and the myriad ways in which they are woven into the fabric of human activity.

*Programming for Digital Art*

A course geared towards Media Study majors with little to no programming experience who wish to pursue programming within the context of an experimental, media study perspective. Basic computer science techniques are introduced through the JavaScript programming language, while contemporary readings provide historical perspective and inspiration.

*Introduction to Physical Computing*

This course introduces basic concepts and techniques for designing, constructing, and programming objects, spaces, and media that sense and respond to their physical surroundings. Eschewing the paradigm of screen-keyboard-mouse, this course seeks alternative modalities — such as light, sound, and touch — for creating interactive experiences.

*Sound + Space*

This graduate course examines sound as the primary material for creative exploration, critical reflection, and aesthetic contemplation. The physical and psychological properties of sound are introduced as well as techniques and methodologies for capturing, manipulating, and presenting sound in space. Students conduct field recordings; construct microphones and instruments; create audio to complement other media; and utilize open source software to manipulate sound and create performance systems.

*Creative Tech: Wearable Computing*

This course serves as a hands-on introduction to the world of physical computing, a hybrid discipline wherein hardware, software, and networks combine to sense, respond, and interface with the physical world. In particular, this course focuses upon body-borne, or so-called wearable computers, digital devices, which via direct proximity to the human body, extend, enhance, amputate, otherwise augment the wearer's experience.

*IoT Workshop*, HCDE School of Engineering, University of Washington, Seattle

A fast-paced introduction to running sensors in the wild, interconnecting spaces, and wrangling the plenitude, this course provides students the opportunity to conceive, prototype, and deploy IoT devices across a variety of configurations and contexts, balancing the technical aspects of interconnecting things with the aesthetics underlying that connection.

*Visual Environments*, Art and Art History, Columbia College Chicago

This graduate studio deals with installation and site-specific works, including an examination of intention versus reception, pre-visualization, and personal process. Students create large-scale, multi-modal collaborative works as well as individual environments invoking John Dewey's ideas of art as an experience and the primacy of the participant.

*Connected Studio Practice*, Art and Art History, Columbia College Chicago

This graduate seminar focuses on deepening students' art practice and unifying individual art pieces into a recognizable body of work. Students refine artist statements, produce grant proposals, and conduct panel discussions, solidifying their practice via public presentation. Through studio visitation, students present ongoing work in open critique, engaging with peers across multiple disciplines.

*Network Performance Workshop*, Department of Medialogy, University of Aalborg, Denmark

This studio seminar introduced graduate students to the possibilities of distributed, networked installations. During this week-long intensive students created networked experiences incorporating audio, visual, and haptic interfaces which were showcased during the University's Open Research Days at the end of workshop.

*Intro to Performance Capture*, Interactive Arts and Media, Columbia College Chicago

This hands-on studio course presents the techniques of real-time performance capture to students from a broad range of disciplines and technical abilities. Participants choreograph, storyboard, and direct capture sessions utilizing a 12-camera passive system. The raw data is analyzed, sonified, and/or visualized in either the Processing or Pure Data environments.

*Coding for Artists*, Art and Art History, New Media Program, University of Illinois Chicago

This course introduces students to the tools and techniques of new media practice via the Processing sketching language. Projects are presented in an open style, such that students may personalize the coursework to their individual practices. The course is rounded out with weekly critiques and student presentations of contemporary artists and practices.

*Sound for Interaction*, Interactive Arts and Media, Columbia College Chicago

This project-based course provides a foundation for understanding the use of sound across a variety of creative disciplines. Beginning with an introduction to acoustics and psychoacoustics, the course investigates the power of creating engaging experiences both with sound alone and impressionistic examples, are reviewed and critiqued. Previous participants have created audio for film, games, interactive applications, and the web.

*Studio Techniques*, The School of Music and Sonic Arts, Queens University Belfast

Led students through hour-long weekly tutorials designed to introduce students to the practicalities of working in a small analog/digital project studio, including gain structure, routing, EQ, outboard processing, basic MIDI, and critical listening. Final project included creating a soundtrack for a five-minute film excerpt.

*Asteroids AR: An augmented reality remediation of the classic video game*, Sean Colgan, MS Media Study. Committee Chair, Fall 2021.

*Portfolio and Video Installation*, David Mosier, MFA, Art. Committee Member. Spring 2021.

*The Human Experience Through Unknown Interfaces*, Andrea Pagan, MFA, Media Study. Thesis Project Supervisor, Summer 2020.

*Reading Between the Lines*, Nashika Dhariwah, M.Arch/M.Media, Architecture & Media Weimar Exchange Program, Thesis Project Supervisor, Fall 2020.

*Experiencing VR: a trajectory through types of embodiment*, Jacqueline Bast, MFA, Fall 2019.

*Ostinato: A sonorous investigation and intervention*, John Wightman, MA/MArch, Project Supervisor/Committee Member, Fall, 2018.

*Descending Parnassus: The State of Material is in Play*, MAST: The Journal of Media Art Study and Theory, Vol 1, No. 2, November 2020.

*Practicing Theory*, MAST: The Journal of Media Art Study and Theory, Vol 1, No. 1, April 2020.

*The World Opera: a new global format for the business of opera*, chapter in The Ashgate Interdisciplinary Studies in Opera series, 2015.

*Interfacing the Network: an embedded approach to network instrument creation*, ICMC 2012.

*Meditation, Mediation, Meditation* (audio recording) on A Pale Yellow Sky. Cliona Doris, harp. RTE Lyric FM ASIN: B001DCHVD8.

*A letter from the trenches of Adrianopolis . . .* (audio recording) in The Winner Takes It All. CAP 22057.

*Media-making, process, and knowledge creation*, PLASMA Lecture Series, SUNY Buffalo, 2021.

*Artist talk*, Graduate Seminar 1, Department of Media Study, SUNY Buffalo, 2020.

*Experimental Practices and Computational Procedures*, PLASMA Lecture Series, SUNY Buffalo, 2018.

*Artist talk*, Graduate Seminar 1, Department of Media Study, SUNY Buffalo, 2017.

*The World Opera: a technical, aesthetic, and philosophical introduction*, Leeds Opera Conference: the business, theory, and practice of opera today, 2012.

*interactivity: connecting things, people, places*, Art.on.Wires Festival, Oslo, 2011.

*VERDIONE: Remote Presence in a World Opera*, Triennial International EU conference on Art and Technology, Oslo, 2010.

*QSL with Lucy Helton (2022-23)*

Stations 8 remote cameras in the decommissioned 1833 Buffalo Lighthouse. This automated system collects images of ice forming at the confluence of the Buffalo River and Lake Erie, transmitting those images back to the gallery via the WeFAX radio/image protocol. Printed on continuous roll thermal paper, these objects/images will be affixed to the wall of Rivalry Projects January-April 2023. The exhibition moves to Penumbra Gallery in June 2023. QSL was awarded a media artist assistant fund grant from Wave Farm in partnership with NYSCA.

*Goodbye World! with Jason Livingston (2021)*

Networked media installation which manifests energy consumption, ubiquitous computation, and free market capitalism as an infrastructure of power cords, ethernet cables, microcontrollers, and four taxidermized toy polar bears. Installed at the Birchfield Penny Arts Center, Buffalo, NY.

*The Order of the Biconditionary (2021)*

GPT-2 AI generated text based on Guy Debord's *Society of Spectacle* running on an LED display in a Brooklyn storefront by the Incident Report collective, subsequently projected on the side of various buildings throughout Prague by the Object Paradise collective.

*foldings (2019)*

Audio-visual improvisation for laptop and projector Black Box Concert Series, School of Music, University of Buffalo.

*A picture agrees with which the same infinite song (2018)*

Sensor design and programming for mapping a dancers motions to granular synthesis developed at Berlin's CTM Festival MusicMaker HackLab.

*Twittage (2017 – present)*

A portmanteau of Twitter (the subject) and *frottage* (the technique), Twittage pulls images from Twitter in real time, as they are posted, layering them upon one another. By varying the alpha value of these images, the number of layers, and the blending algorithm, the process creates a range of results from abstract fields of color to complex media collages/barrages.

*@RevBradleyBot (2015 – 2016)*

A bot generating texts based on the collected works of the Reverend Preston Bradley, serving as a social media iteration of the Reliquary installation detailed below. This bot uses the Rita natural language processing library within the Processing sketching platform.

*@guydebordbot (2017 – present)*

This work is generating texts from Guy Debord's *Society of Spectacle* as well as composing a unique twinge based the key words *fake* and *news*.

*August 2016 (2016-17)*

A deck of 101 postcards prepared during August of 2016 for realization at a later date by unknown individuals in an indeterminate location at an unspecified time. Cards are selected by gallery visitors who are asked to perform the task on the back of the card, verify the act, and return the card to a PO Box in Galena, Ohio.

*Reliquary: for the body of Preston Bradley* (2015)

A sculpture taking the form of a lamp which generates, displays, and tweets contemplative koans based upon the self-help texts of Reverend Preston Bradley.

*influx* (2014)

Abstracted visualizations of motion capture data to accompany a performance by students of Columbia College's Dance Center.

*Zoetrope* (2014)

A 16-frame zoetrope comprised of 3-dimensional figurines, derived from motion capture data, mounted on a user-actuated rotating platform.

*World Opera Lab Presentation/Performance* (2013)

Distributed jazz trio connecting Leipzig, DE, Middelfart, DK, and Tromsø, NO for the Danish E-Infrastructure Cooperation Network (DEIC).

*Time Travel* (2013)

A 3-day event connecting musicians, video feeds, and crowd-sourced imagery from participants at the University of Tromsø and Nanyang Technological University, Singapore.

*La Serva Padrona* (2012)

A full production of Pergolesi's chamber opera distributed between 2 theaters of Tromsø's Kulturehuset as the culmination of the VERDIONE/World Opera research project.

*Arctic Trombone Festival* (2011)

Master class and concert connecting Tromsø and KTH Stockholm with the 26-member Tromsø Kammerorkester.

*Networked Dance Workshop* (2011)

A trans-global workshop connecting the dance technology program at UC Berkeley with the Art.on.Wires Festival at the University of Oslo.

*Redux* (2011)

Real-time audio and video performance based upon *Symphonie Diagonale* by Viking Egging for interactive video, computer, and saxophone.

*JacksOn4* (2011)

Networked electroacoustic performances between multiple sites acoustically interfacing physical objects and musical instruments with the Internet.

*Arctic Trombone Festival* (2010)

Transatlantic trombone master class between New York University/The Julliard School and the University of Tromsø.

*World Opera Days* (2010)

Presentation of operatic excerpts distributed across 3 spaces at the University of Tromsø as part of the International World Opera Days.

*Algorhythms* (2010)

Interactive/generative sound score for dance which responds to the dancer's actuation of switches embedded in the stage floor.

*Cubes 2009* (2009)

Interactive 4-channel sound installation with 8 purpose-built cube controllers allowing participants to influence the evolving soundscape.

*Soft machine.* (2008)

Interactive 4-channel sound installation invoking the words and cut-up processes of William S. Burroughs triggered by a large futon sensor.

*Cubes x5* (2009)

A variation of the *Cubes 2009* installation with dancers improvising with the interfaces, generating a complementary score as the choreography progresses in real time.

*Soft machine.* (2008)

Interactive 4-channel sound installation invoking the words and cut-up processes of William S. Burroughs triggered by a large futon sensor.

*incommunicado* (2009)

Stereo fixed work focusing on intimate vocalizations.

*STROKE.* (2007)

A soundscape to accompany an exhibition of a ceremonial silver works in the collection of the Naughton Gallery, Belfast.

*Mécanique* (2007)

Stereo miniature for the 60x60/Vox Novus Project features as part of Midwest Minutes compilation.

*Fuinneoga for uilleann pipes and electronics* (2006)

Open score work the Irish bagpipes and laptop electronic treatments.

*Combine (after Rauschenberg)* (2006)

8-channel work comprised of vinyl albums collected from thrift shops throughout Ireland.

*The 9th Calanque* (2006)

An improvisational musical environment for computer, gamepad, and soloist allowing the performer to navigate a compositional space.

*Meditation Mediation Meditation for harp and electronics* (2005)

Commissioned from The 9th International World Harp Congress and available on A Pale Yellow Sky (RTE Lyric FM ASIN: B001DCHVD8).

*The orchestra of the noises of war for 4-part ensemble, percussion, piano* (2005)

Open form score short-listed for COMA Open Score Call.

*Terrestrial Variations for orchestra, chorus and live electronics* (2005)

Large-scale open form orchestral and choral work with live electronics.

*A letter from the trenches of Adrianopolis . . .* (2004)

Fixed-stereo work based upon improvised readings of the Marinetti text of the same name, recipient of the emsPrize 2004 for text-art composition from Electronic Music Sweden.

*Elizabeth* (2004)

Original music and sound design for the Dario Fo farce commissioned from Kabosh Theatre Company, Belfast.

*Metropolis '04* (2004)

Improvised laptop performance with purpose-built software (Max/MSP) commissioned from Moving on Music for the film by Fritz Lang.

*do you know who i am?* (2004)

Fixed stereo text-based composition based upon the phrase.

*Chlorine Gardens* (2003)

An opera in one act for 6 voices, live electronics, and tape performed in Middle Irish.

*Tango Reflexivo* (2003)

Fixed stereo work utilizing Ross Bencina's Audio Mulch software and granular synthesis.

*The Ouroboros Cycle* (2002)

Performance work for solo voice, live electronics and fixed quadraphonic elements, presented as part of DAWN: An Exhibition of Interactive Media and Music Technology.

*Galvani's Grenouille* with Brock Craft (2001)

*Perceptio Corporis* (2000)

For tenor voice and electroacoustic accompaniment.

*Subject: Matter* (1999)

*Schwanegasang*

For tenor voice and harp accompaniment.

*Fig. 3-d* (1999)

*Jack Black and Bessie Blue* (1999)

*2081* (1998)

An adaptation of Kurt Vonnegut's Harrison Bergeron.

*69* (1998)

*Mantis* (1997)

*Between Two Worlds (The Dybbuk)* by Shulamit Ran (1997)

Lyric Opera of Chicago

*The Crucible* (1996)

Steppenwolf Theatre, Chicago, Illinois

*Mitu Arrarauna: A passage in time . . .* (1995)

Student Film, American University

*Dean's Award for Interdisciplinary Collaboration (Media Art and Dance)* (2023)

*Wave Farm Media Artists Assistance Grant* (2022-23)

*Coalesce Center for Biological Arts Fellowship, SUNY Buffalo* (2021-22)

*Experiential Learning Fellowship, SUNY Buffalo* (2019)

*UUP Development Award* (2018)

*CTM Festival HackLab Fellow, Berlin, Germany* (2018)

*Camargo Foundation Fellowship and Residency, Cassis, France* (2006)

*STEIM Fellowship and Residency, Amsterdam, The Netherlands* (2006)

*emsPrize (Stockholm) for A letter from the trenches of Adrianopolis . . .* (2005)

*Supportive Program for University Research Bursary* (2003-5)

*Chicago Artist Assistance Program Award* (2001)

*Illinois Arts Council Fellowship* (2000)



## Affiliations

*The Center for Architecture and Situated Technologies (CAST) at SUNY Buffalo*  
*New Interfaces for Musical Expression*  
*International Computer Music Association*  
*The Processing Foundation*  
*Society for Electroacoustic Music in the United States*  
*Midwest Society for Acoustic Ecology*

## Skills

HTML, CSS, and JavaScript  
Data flow multi-media platforms including Max/MSP, Pure Data, VVVV, and Isadora  
Server/Client protocols (MQTT, Node-RED, and web sockets)  
Digital Audio production  
Sound synthesis  
Processing/p5.js  
Embedded platforms: Arduino, Particle, Raspberry Pi  
Radio Communications (LoRa, WiFi, Bluetooth), General Amateur License KD2SGY  
EagleCAD, Fritzing, circuit design, and PCB production  
Digital fabrication, Laser cutting/etching and 3D printing  
Telematic performance systems, broadband streaming, WebRTC and other peer-to-peer systems  
Motion capture  
Composition and sound design for dance, theatre, and film  
Site-specific performance and installation