

Jason E Geistweidt

Curriculum Vitae

Contact

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Position

Clinical Assistant Professor, Media Study, University of Buffalo, New York
Maintaining a 3/3 load delivering workshop-based experimental and experiential new media courses focusing on the intersection of hardware, software, and network within a trans-disciplinary practice.
Coordinating the activities of the Media Lab, an investigatory space where Media Study and Architecture students work to investigate the incorporation of soft- and hardware tools into their creative practices.

Education

Doctor of Philosophy, Electroacoustic Composition
The Sonic Arts Research Centre, Queen's 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
First Class Honors Degree
Examiner: Dr. Daniel Oppenheim

Bachelor of Music, Music Education
Southwestern University, Georgetown, Texas

Post-doctoral

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.

2018/19 Course Offerings

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.

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.

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.

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.

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2017/18 Course Offerings

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.

New Media I

A graduate-level introduction to the production of web-based media within the context of net-art. Development standards for desktop and mobile works are introduced and then quickly subverted. JavaScript and CSS are utilized to investigate/redefine the boundaries of the static browser paradigm. Alternative deployment strategies are examined.

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.

Foundations Skill: Web Design, Art and Art History, Columbia College Chicago

This introductory, 1-credit foundation course focuses on the use of specific materials, tools, and, techniques to support the production of creative works within the context of an Internet browser. HTML, CSS, and basic design concepts are introduced through a series of classroom development of problem solving skills required for interdisciplinary creative practice.

Interactive Web Design, Art and Art History, Lake Forest College

This course integrates art and design fundamentals into a web-based, interactive format, including a review of design fundamentals for the web and an introduction to the history of animation and interactive design. The course covers web design conventions and considerations including color and typography for the web, grid design, and wire-framing.

Graduate

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Art + Code, Interactive Arts and Media, Columbia College Chicago

This course introduces students to the use of code as a means for creating interactive works of screen-based art. Students learn basic programming skills in a creative, artistic context using Processing, a robust and easy to learn sketching language. Class time is divided between demonstration, practice, and a survey of contemporary artists and practices. Use of interfaces such as the Kinect, Wacom tablet, Arduino, and web cameras are introduced and advanced students may work in p5.js, Processing's JavaScript version.

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. Previous students have created a variety of works including interactive installations, social-media hacks, digital audio works, 2D animations, and generative designs. 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.

Sound and Music for Interactive Visual Media, Interactive Arts and Media, Columbia College Chicago

This course offers a chance to study the psychological and technical aspects of applying sound and music to interactive visual media. Students study the fundamentals of music (notation and intervallic relationships) and receive a solid foundation in sound design theory and aesthetics. Writings and works of Michel Chion, David Sonnenschien, and Walter Murch are introduced and discussed.

Sound Design for Gaming, Interactive Arts and Media, Columbia College Chicago

This course introduces the audio development pathway commonly encountered in the game design industry, including asset production and management, integration of music and voice over, along with the implementation of localized and generative sound within the sound engine.

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.

Experiencing VR: a trajectory through types of embodiment, Jacqueline Bast, MFA, Chair

Ostinato: A sonorous investigation and intervention, John Wightman, MA/MArch, Committee Member

Exploring non-linear/temporal history in digital society, Mani Mehrvarz, PhD, Committee Member

Undergraduate

Committees

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Current Projects	<p><i>for want of forest</i> (in production)</p> <p>A large-scale, telematic audio-visual installation comprised of 40 two-meter acrylic tubes suspended vertically at varying heights across a darkened gallery space. Each object is illuminated internally by a strip of addressable RGB LEDs, such that each tube becomes, effectively, a very low-resolution 1 x 60 pixel display. Collectively, the installation is conceived as a distributed, 3-dimensional assemblage of 2,400 pixels which the viewer may enter into and observe from various angles and vantage points.</p>
	<p><i>Twittage</i></p> <p>A portmanteau of Twitter (the subject) and <i>frottage</i> (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.</p>
	<p><i>@RevBradleyBot</i></p> <p>This program is 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.</p>
	<p><i>@guydebordbot</i></p> <p>This work is generating texts from Guy Debord's <i>Society of Spectacle</i> as well as composing a unique twinge based the key words <i>fake</i> and <i>news</i>.</p>
Postal	<p><i>netChimes</i></p> <p>A globally-distributed wind instrument comprised of 20 chime-sensors relaying real-time ambient activity to a master carillon at the installation venue.</p>
	<p><i>August 2016</i> (2016-17)</p> <p>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.</p>
Installation	<p><i>Reliquary: for the body of Preston Bradley</i> (2015)</p> <p>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.</p>
	<p><i>Cubes 2009</i> (2009)</p> <p>Interactive 4-channel sound installation with 8 purpose-built cube controllers allowing participants to influence the evolving soundscape.</p>
MoCap Derived	<p><i>Soft machine.</i> (2008)</p> <p>Interactive 4-channel sound installation invoking the words and cut-up processes of William S. Burroughs triggered by a large futon sensor.</p>
	<p><i>influx</i> (2014)</p> <p>Abstracted visualizations of motion capture data to accompany a performance by students of Columbia College's Dance Center.</p>
	<p><i>Zoetrope</i> (2014)</p> <p>A 16-frame zoetrope comprised of 3-dimensional figurines, derived from motion capture data, mounted on a user-actuated rotating platform.</p>

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Performance

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 via the Wekinator AI package. Developed as part of a collaborative performance upon invitation to Berlin's CTM Festival MusicMaker HackLab 2018

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.

Algorhythms (2010)

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

Cubes x5 (2009)

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

The 9th Calanque (2006)

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

Distributed Performance Production

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.

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.

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Presentations/Publications

Experimental Practices and Computational Procedures (2018)

Artist's Talk, *Plasma Conference 2019*, Department of Media Study, University of Buffalo

The World Opera: a new global format for the business of opera (2015)

Published in *The Business of Opera*, edited by Anastasia Belina-Johnson and Derek B. Scott, as part of the Ashgate Interdisciplinary Studies in Opera series.

Interfacing the Network: an embedded approach to network instrument creation (2012)

In the Proceedings of the International Computer Music Conference 2012, Ljubljana, Slovenia.

The World Opera: a technical, aesthetic, and philosophical introduction (2012)

Presented at the Leeds Opera Conference: the business, theory, and practice of opera today.

interactivity: connecting things, people, places (2011)

Presentation of ongoing research in networked performance as invited speaker at the Art.on.Wires Festival.

VERDIONE: Remote Presence in a World Opera (2010)

Presentation of the VERDIONE/World Opera project for the triennial international EU conference on Art and Technology, Oslo.

incomunicado (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.

Compositions

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.

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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

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Awards/Residencies

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 the University of Buffalo
The College Art Association
The New Media Caucus
New Interfaces for Musical Expression
The Processing Foundation
Society for Electroacoustic Music in the United States (SEAMUS)
Midwest Society for Acoustic Ecology
The World Opera Association

Skill set

Adobe Creative Suite
HTML, CSS, and JavaScript
Data flow multi-media platforms including Max/MSP, Pure Data, VVVV, and Isadora
'IoT' Server/Client technologies such as MQTT, Node-RED, and web sockets
Digital Audio production including Ableton LIVE, ProTools, studio hardware
Sound synthesis
Processing/p5.js
Embedded platforms: Arduino, Particle, Raspberry Pi, ESP8266
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 for dance, theatre, and film
Site-specific performance and installation