

Programming Max/MSP: Structuring Interactive Software for Digital Arts

Workshop Date:

Mon, 06/26/2017 - Fri, 06/30/2017

About the Class

Max is a powerful platform that accommodates and connects a wide variety of tools for sound, graphics, music and interactivity using a flexible patching and programming environment. Max allows most computer users to write a simple, meaningful program within a few minutes, even with limited programming knowledge. But to do something more substantial it's necessary to approach Max as an actual programming language, by taking advantage of its various mechanisms for abstracting program elements into scalable, reusable components that can be combined in increasingly powerful ways.

Matt Wright's online **Kadenze course** (https://www.kadenze.com/courses/programming-max-structuring-interactive-software-for-digital-arts/info) gives a thorough overview of Max's capabilities emphasizing how to reason about designing Max software, over the course of about 24 hours of online lectures divided into 10 sessions each with a project. Anyone on the Internet can sign up for a free (or Premium) membership to watch these lectures and download the class' software, assignment prompts, and other materials.

The 2017 CCRMA Summer Workshop will be a "flipped classroom": everyone will agree to watch (at least) certain lecture videos prior to each meeting, and we will then spend workshop time together in hands-on lab sessions addressing questions, exploring further discussion, and mentoring student project(s).

We strongly recommend you bring your own Mac or Windows computer (preferably a laptop); let us know if this is not possible for some reason.

Course Outcomes: You will design and build a project of your own choosing, e.g., a game, live performance instrument, installation, generative audiovisual artwork, web crawler, robot brain, or alarm clock. You will also achieve the learning outcomes of the online class: proficiency as a Max programmer, an understanding of some best practices, and the confidence to continue learning and troubleshooting on your own.

This class offers two **Women in Computer Music Scholarships** (https://ccrma.stanford.edu/women-in-computer-music-max-workshop-scholarship).

About the Instructors

Dr. Matthew Wright (https://ccrma.stanford.edu/~matt) is a media systems designer, improvising composer/musician, computer music researcher, and the Technical Director of Stanford's Center for Computer Research in Music and Acoustics (CCRMA (https://ccrma.stanford.edu)). He was the Musical Systems Designer at U.C. Berkeley's Center for New Music and Audio Technology (CNMAT (http://cnmat.berkeley.edu)) from 1993-2008, where he became known for his promotion of the Sound Description Interchange Format (SDIF) and Open Sound Control (OSC) standards, as well as his work with real-time mapping of musical gestures to sound synthesis. His dissertation at CCRMA concerned computer modeling of the perception of musical rhythm: "The Shape of an Instant: Measuring and Modeling Perceptual Attack Time with Probability Density Functions (https://ccrma.stanford.edu/~matt/diss/Matthew-Wright-Dissertation.pdf)." He was the Research Director of UCSB's Center for Research in Electronic Arts and Technology (CREATE (http://www.create.ucsb.edu)) for eight years, where he taught classes, advised students, founded and directed the CREATE Ensemble dedicated to research and musical creation with technology in a live performance context (which he still directs remotely), as well as being Principal Development Engineer for the AlloSphere (http://www.allosphere.ucsb.edu), a 3-story full-surround immersive audiovisual instrument for scientific and artistic research. As a musician, he plays a variety of traditional plucked lutes, Afro-Brazilian percussion, and computer-based instruments of his own design, in both traditional music contexts and experimental new works.

Dr. Christopher Jette (http://www.ci.lovelyweather.com) is a curator of lovely sounds, creating work as a composer and new media artist. His creative work explores the artistic possibilities at the intersection of human performers/creators and technological tools. His compositional work work often involves custom Max software in both the compositional and performance stages. Christopher's research details his technical and aesthetic investigations and explores technology as a physical manifestation of formalized human constructs. A highly collaborative artist, Jette has created works that involve dance, theater, websites, electronics, food, toys, typewriters, cell phones, instrument design and good ol' fashioned wood and steel instruments. In addition to creating concert music, Christopher explores Creative Placemaking through site-specific and interactive work as a core-four member of the Anchorage based Light Brigade. In 2015-16 he was the Interdisciplinary Grant Wood Fellow and currently is an Artist in

Residence and Technical Staff at CCRMA. Learn more at www.cj.lovelyweather.com (https://www.cj.lovelyweather.com (https://www.c



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