

I am an internationally-known, award-winning composer specializing in computer music, improvisation, and experimental practices. My work fuses sounds and concepts from the American experimental music tradition with the emotional expressiveness of improvised music.

I am equally involved in electronic and acoustic music, constantly striving to make my acoustic music sound more "electronic" and my electronic music sound more "acoustic." To this end, my electronic music approaches musical gesture with an almost "instrumental" quality to its articulation, rhythm, dynamics, and formal structure, while my acoustic music is focused on "synthesizing" new sounds through non-traditional orchestration and instrumental techniques. In both fields, I take a pragmatic approach to the creative process, and seek efficient means of instruction - be it notation or computer code - to achieve my compositional goals.

I am a skilled C++ programmer of audio and music applications, with a keen interest in creating interactive "virtual improviser" programs. These programs often listen to and interact with a human improviser — usually myself, on clarinet — while making real-time musical decisions. My interactive piece, CLAIRE, has been cited alongside George Lewis' Voyager as a quintessential example of interactive computer music improvisation in classes at the University of Wisconsin, Milwaukee and in a paper at the Proceedings of New Interfaces for Musical Expression in Paris.

In addition to my interactive music, I have created software performance instruments, algorithmically generated compositions, network-based live computer music (most recently with *The Hub*), and commercial audio software. I am the developer of several publicly available applications, including: *Soundflower*, an audio routing utility; *Fielder*, an iTunes visualization of a stereo image; and a handful of iOS apps available on the App Store: *Aardvark Synthesizer*, *MIDI Sliders*, *Terry Riley's "In C" Performer*, and *The Transbay Creative Music Calendar*. I have been involved in the open-source development of Csound for over 15 years. My front end host, *MacCsound*, received an "Editors Choice Award" from *Electronic Musician Magazine*. I have worked as a software developer for many major companies in the music industry, including *Cycling '74*, *Rogue Amoeba*, *BIAS*, *GVOX*, *Audible Magic*, and *Arboretum Systems*.

Much of my recent software has been created with *SonoDSP*, a C/C++ audio synthesis and signal processing library I have been developing for the past few years. My library is firmly in the "Music-N" tradition, with the emphasis on creating native apps with modern development and debugging tools. It is my goal to continue developing this project, growing a wider user base as I make enhancements to the code.

In addition to software-based works, I compose for tape alone. In 1999, I co-founded the "New" San Francisco Tape Music Collective, producing an annual three-day festival of fixed media works. The collective performs tape compositions with live diffusion over sixteen or more loudspeakers in

complete darkness - a European style of performance rarely seen in the United States. I am proud that our collective is playing a vital role in preserving and progressing an important and powerful art form that is often overlooked.

I am an active clarinetist in the Bay Area's improvised and new music scenes. I have worked with a diverse group of composers, including: Mark Applebaum, Anthony Braxton, John Butcher, Helmut Lachenmann, Joan LaBarbara, George Lewis, Miya Masaoka, Meredith Monk, Hyo-shin Na, Pauline Oliveros, Larry Polansky, Stefano Scodanibbio, Richard Teitelbaum, Chinary Ung, and numerous young and emerging composers.

My most frequent appearances as a composer and clarinetist are with sfSound, an award-winning new music ensemble, concert series, and internet radio station I founded and co-direct. Overlapping my own interests and background, sfSound presents music from the European Avant-Garde to the grittiest sounds of the West Coast Improv-Underground, encompassing recent trends in instrumental technique, conceptual art, music theater, and electronic sound. Through sfSound, I have not only performed a large range of new and experimental music, but I have learned to be successful at writing grants, curating programs, organizing rehearsals, and marketing concerts.

Improvisation represents a significant portion of my musical output. I view improvisation as a form of composition, and I place no higher value on a notated score, a real-time improvisation, or a work combining the two approaches. In fact, my ongoing solo work lies somewhere in between a fully-notated composition and a spontaneous improvisation. Furthermore, these solos explore extended techniques which interact with the acoustic space, often as combination tones. Most recently, I have been performing my solos live with a stereo microphone turned sideways to produce interesting panning effects.

Throughout my professional life, I have sought to create my own path, balancing a quadruple career as composer, clarinetist, concert organizer, and computer programmer. I have given many guest lectures and held adjunct faculty positions at Dartmouth College and the University of San Francisco.