

Carr Lane Wilkerson

Center for Computer Research in Music and Acoustics
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Education

- 2002-2004 **Tulane University**, New Orleans, Louisiana
Masters of Engineering in Electrical Engineering
Media Technology Focus (graduation TBD)
- 2001-2002 **Stanford University**, Stanford, California
Center for Computer Research in Music and Acoustics (CCRMA)
Master of Arts, Music: Music Science and Technology, June 2002
- 1989-1993 **Tulane University**, New Orleans, Louisiana
Bachelor of Science, Physics, May 1993

Professional Experience

- 9/05-Present **Adjunct Instructor**, CCRMA, Stanford University, HCI for Musical Controllers.
- 1/03-8/05 **Adjunct Instructor**, Newcomb Department of Music, Tulane University
Course Title: Computer Applications in Music. Course is an introduction to digital audio editing and recording in Pro Tools and to Max/MSP.
- 6/05-8/05 **Instructional Technologist**, Foreign Language Instructional Technology Environment (FLITE), Tulane University. Assist with implementation of new technologies in Tulane University's foreign language program by identifying new software and hardware for use in the teaching of foreign languages, assisting faculty to design and create their own curricular materials, and collaborating on the planning, securing, and implementation of grant and other funding projects.
- 8/04-12/04 **Technology Coordinator**, Teacher Preparation and Certification Program, Tulane University. Media lab management and student training in video and image editing, and web design.
- 1993-2001 **Lieutenant, US Navy**, Nuclear Propulsion Engineer, US Naval Liaison to French Naval Academy.

French Language Skills

I am certified at level 3 (highest level for non-native speaker, signifying working professional proficiency) on the Defense Language Proficiency scale. I have a high degree of fluency in reading, speaking, and writing.

Audio Systems Experience and Programming

Developed knowledge of the Pro Tools digital audio workstation software suite in editing, mixing and mastering. Other music software experience includes: Max/MSP, pd, snd, supercollider, Reason, Traktor, and various plug-in suites. Experience with real-time image processing using Jitter and GEM. User and evangelist of PlanetCCRMA.

Interactive musical controller design and implementation using various sensors and the Basic Stamp/Atmel micro-controllers.

Live concert sound engineering (including multi-channel) and recording for computer music and contemporary music performances using digital mixers and Pro Tools systems. Engineered performances include: David Wessel, Mara Helmuth, and Kui Dong. Organized, engineered, recorded and performed in live experimental electronic music series entitled “Modulations,” featuring local New Orleans experimental musicians.

Perform electronic music in various concert settings with Mac G4 Powerbook, Wacom Tablet, M-Audio Ozonic i/o-midi interface, Max/MSP and Native Instruments Traktor.

Experience in Matlab, C, C++, Java, Lisp and Scheme programming languages. Scripting language experience includes: Action Script, JavaScript, Perl and various Unix shell scripting languages. Markup language experience includes: HTML, XHTML, and XML.

Experience in web development and design using the Macromedia Studio MX 2004 suite as well as image editing using the Adobe Creative Suite and Gimp. Video editing experience includes Final Cut Pro, Media 100, iMovie, and Windows Movie Maker.

Network Administration assistance for Tulane University’s Music Technology Laboratory, Digital Signal Processing Laboratory, and Language Learning Center. Extensive experience with computer hardware, software, and network maintenance on Windows, Apple and Linux operating systems.

Co-host the “*20th Century Classical*” show on WTUL, 91.5fm New Orleans, contributing to an ever widening knowledge of the electro-acoustic, computer, modern classical and experimental music repertoire. Public Radio International segment production for “*American Routes*” with Nick Spitzer.

Document Publishing: Latex, OpenOffice, MS Office and Adobe Acrobat suites.

Workshops

Digital Signal Processing for Audio: Spectral and Physical Models

CCRMA, Stanford University, July 16 - 27, 2001

Linux Sound: Open Source Music Synthesis, Composition, and Audio Programming,

CCRMA, Stanford University, July 30 - August 10, 2001

Advanced MAX/msp/Jitter Workshop, CNMAT, University of California, Berkeley, July 2003

Several Film Production and Post-Production workshops at Skywalker Sound (CA), Swelltone Labs (New Orleans), and CCRMA (Stanford).

Papers Presented

Wilkerson, C., Serafin S., Ng, C., “Physical Model Synthesis and Performance Mappings of Bowl Resonators,” International Computer Music Conference (ICMC) 2002, Gotheborg, Sweden.

Serafin, S., Wilkerson, C., Smith, J., “Modeling Bowl Resonators Using Circular Waveguide Networks,” DAFx 2002, Hamburg, Germany.

Wilkerson, C., Serafin, S., Ng, C., “The Mutha Rubboard Controller,” New Interfaces for Musical Expression Conference (NIME) 2002, Dublin, Ireland

Conferences Attended (in addition to above)

International Computer Music Conference (ICMC) 2001, Havana, Cuba

New Interfaces for Musical Expression (NIME) 2003, Montreal, Canada

International Computer Music Conference (ICMC) 2004, Miami, Florida

Florida Artificial Intelligence Society Conference (FLAIRS) 2003, St. Augustine, Florida

International Language Learning Technology Conference 2005, Provo, Utah

University and Community Service

2002-Present *Steering committee* – Faculty Search and Music Technology Program Development, Tulane University

2004-Present *DJ*, WTUL, 20th Century Classical Music, Sunday 10pm-midnight

2001-2005 *Executive Staff*, Audio Engineering Society (Stanford, Tulane, and New Orleans Chapters)

2002-2004 *Student Director*, Digital Signal Processing Laboratory, Department of Electrical Engineering and Computer Science, Tulane University

1991-1993 *Technical Director*, WTUL: Tulane University College Radio

Relevant Graduate-Level Courses

Computer Music Composition (Stanford)

Compositional Algorithms
Computer Music Research Seminar

Fernando Lopez-Lescano
Chris Chafe

Interactive Performance Systems (Stanford)

Human-Computer Interfaces – Theory and Practice
Human-Computer Interfaces – Performance Systems

Bill Verplank, Max Matthews
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Recording Arts

Fundamentals of Sound Recording (2 quarters)

Jay Kadis (Stanford)

Digital Signal Processing, Sound Synthesis, and Control

Fundamentals of Computer Generated Sound
Intro to Digital Signal Processing
Applications of the Fast Fourier Transform
Signal Processing Methods in Musical Acoustics
Speech Processing
Adaptive Signal Processing
Modern Control Theory
Control System Design
Statistical Communications
Digital Signal Processing I and II
Digital Signal Processing for Musicians (audit)

Chris Chafe (Stanford)
Julius Smith (Stanford)
Julius Smith
Julius Smith
Dale Joachim (Tulane)
Andrew Martinez (Tulane)
Raj Pandian (Tulane)
Raj Pandian
Andrew Martinez (Tulane)
Maria Kalcic (Tulane)
Tae Hong Park (Tulane)

Graphic Arts

Digital Media 1
Image Processing

Kevin Jones (Tulane Art)
Bill Buckles (Tulane CS)

Other

Psychophysics and Cognitive Psychology for Musicians
Programming Methodology (C Programming)
Object Oriented Programming (C++) (audit)
Linear Algebra
Probability and Statistics
History of Electronic Music and Technology (audit)

Jonathan Berger (Stanford)
Stanford University
Tulane University
Tulane University
Tulane University
Tae Hong Park (Tulane)

References

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