John Crooks

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Since 2007 I have been involved with leading-edge technologies for multimedia, creativity, and education. As a programmer and technologist I have developed interactive tools for music performance, improvising computers, and advanced professional solutions for major studio films. My communication skills are excellent and well suited to multi-constituent presentation and consensus building.

As Project Lead for Multimedia Design I develop, coordinate, and support a broad set of digital solutions and bespoke tools at John Powell's music composition, recording, and audio postproduction facility. The audio services we provide include the score and music mix for major feature films. Close to 100% up time, complete OS X/Windows interoperability, and leading-edge audio concepts are key in my current position.

Since late 2013 John Powell's main recording studio has been using an active acoustic space I designed and built. This 16x16 I/O system uses proprietary algorithms to change room ambience, sonic size, and characteristic for recording. It is on 24/7 and has been used in dozens of recording sessions with close to zero technical issues. The design employs multidimensional matrix and eigenvector mathematics to achieve highly convincing reverberance without computationally expensive algorithmic or IR reflection routines. The system runs on a single older Mac Pro with plenty of headroom.

Other projects in this position address every aspect of studio operations, from generative tools for music composition to packet-based network solutions for creative computing workstations.

2013-2018 Project Lead, Multimedia. John Powell/5Cat Studio.

Research, Development, and Implementation

- Active acoustic system design for music recording
- Creation and testing of algorithms for sound-field control
- Solutions for multichannel immersive audio delivery
- Digital room correction for stereo, 5.1, 7.1, and large multichannel loudspeaker systems
- Standards and listening based testing of microphones, loudspeakers, and DSP algorithms
- User interface design
- Ambisonic capture and decoding
- Bespoke software design for music production facilities
- Project-critical interoperable network solutions
- Software validation

Responsibilities

- Proof-of-Concept
- Agile management of multiple iterative processes
- Communicate/troubleshoot/debug with 3rd party hardware and software developers
- Maintain complex systems with close to 100% up time
- Coordinate and prioritize competing projects with technical and creative staff

Credits

- *Rio 2*
- *How To Train Your Dragon 2*
- *Pan*
- *Jason Bourne*
- *Ferdinand*
- *Solo: A Star Wars Story*

2010-2012 Lecturer, University of California, Irvine.

Research

- Software design for teaching, learning, and assessment
- Cross-platform application development for audio and music
- Human computer interaction for musical systems
- Rhythm and tonality perception and execution
- Theory of improvisation
- Algorithmic music composition

Responsibilities

- Multimedia course design
- International lectures, conferences, and seminars
- Courses in music and Digital Media

Publications

- *Introduction to Pitch Systems In Tonal Music*
- *Subversive Networking and Popular Song: From 'I Got Rhythm' to 'Bite Your Grandmother'*
- *Recreating An Unreal Reality: Performance Practice, Recording, And The Jazz Rhythm Section*

1995-2009 Bassist, Composer, Performer

- Recordings and performances in New York and Los Angeles

- 5 albums as leader or co-leader
- Band and tour management for national bookings
- Expertise across musical genres

2009 Master of Fine Arts, University of California, Irvine

- Program in Integrated Composition, Improvisation, and Technology
- Thesis on improvising computers and theory of musical improvisation

1995 Bachelor of Music, New York University

- Emphasis on Music and Jazz Studies
- Second emphasis on Art History