HONGCHAN CHOI

PhD Candidate
Center for Computer Research in Music and Acoustics (CCRMA)
Stanford University
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SKILLS

- Advanced proficiency in HTML5 API and JavaScript.
- Author of **WAAX (Web Audio API eXtension)** JavaScript Library.
- Highly experienced with web graphics technology: *WebGL, Canvas, SVG.*
- Real-time audio and OpenGL programming with *C++, Objective-C, C#(XNA).*
- Extreme fluency in rapid prototyping: *Processing, Max/MSP/Jitter, ChucK, Arduino.*
- User experience design for gestural input system and: *Kinect, PrimeSense, Leap Motion.*
- Professional music production experience over 10 years: *composition, arranging, mixing and mastering.*

DOCTORAL THESIS EXPECTED IN 2015

"The design of collaborative music system: rethinking music making platform through web technologies."

EXPERIENCE

RESEARCH ASSISTANT, CCRMA, STANFORD UNIVERSITY 2013-PRESENT
API design for web audio programming and collaborative music platform based on web technology.

SOFTWARE ENGINEERING INTERN, GOOGLE CHROME, GOOGLE INC. 2013
Created demo applications for Web Audio API, Web MIDI API and Web Component.

TEACHING ASSISTANT, CCRMA, STANFORD UNIVERSITY 2011-2013
Assisted and advised students in various computer music courses: Music 220A, Music 220C, Music 128.

SOFTWARE ENGINEERING INTERN, GOOGLE RESEARCH, GOOGLE INC. 2012
Designed various applications for internal (confidential) demonstration.

ADJUNCT RESEARCHER, KAIST, SOUTH KOREA 2008-2009
Created course material and delivered lectures for audiovisual interaction design class.

SOUND DIRECTOR, DONGGUK UNIVERSITY, SOUTH KOREA 2006-2008
Designed and managed music studio, Studio S3 at Dongguk University, Seoul, Korea.

LECTURER, MULTIPLE INSTITUTES, SOUTH KOREA 2005-2009
Yonsei, Dongguk, Kyunghee and Baekseok University in South Korea.
Designed multiple courses on computer music. Delivered weekly lectures and advised student projects.

EDUCATION

STANFORD UNIVERSITY, PHD CANDIDATE 2010-2015, EXPECTED
CCRMA, Computer-based Music Theory and Acoustics: *GPA 3.96*

STANFORD UNIVERSITY, PHD MINOR CANDIDATE 2011-2015, EXPECTED
Computer Science

STANFORD UNIVERSITY, MASTER OF ARTS 2010-2011
CCRMA, Computer-based Music Theory and Acoustics: *GPA 3.93*

DONGGUK UNIVERSITY, DOCTOR OF MUSICAL ART 2007-2009, ON LEAVE
Computer Music Composition: *GPA 4.38*

DONGGUK UNIVERSITY, MASTER OF MUSIC 2005-2007
Computer Music Composition: *GPA 4.25*

SUNGKYUNKWAN UNIVERSITY, BACHELOR OF ENGINEERING 1995-2000
Information Engineering: *GPA 3.24*

SELECTED COURSEWORK AT STANFORD

Music 220A	Fundamentals of Computer-generated Sound: *ChucK, Processing*
Music 320	Introduction to Digital Audio Signal Processing: M*ATLAB*
Music 250A	Physical Interaction Design for Music: *Arduino, PureData*
Music 424/EE 367D	Signal Processing Technique for Digital Audio Effects: *MATLAB*
Music 128/CS 170	Stanford Laptop Orchestra: Composition, Coding and Performance: *ChucK*
CS 221	Artificial Intelligence: *Python*
CS 248	Interactive Computer Graphics: *C++, OpenGL*
CS 247	HCI Interaction Design Studio: *C#, Kinect, XNA*
Music 256A/CS 476A	Music, Computing and Design: *C++, OpenGL, Audio*
Music 256B/CS 476B	Mobile Music: *C++/Objective-C, OpenGL, Audio*

HONORS AND AWARDS

RIC WEILAND GRADUATE FELLOWSHIP 2013
For outstanding academic performance. School of Humanities & Sciences, Stanford University

DEPARTMENTAL TEACHING AWARD 2013
For the excellence in teaching. Department of Music, Stanford University

FINALISTS - STANFORD COMPUTER GAME COMPETITION 2011
Computer Science Department, Stanford University

HUMANITY AND SCIENCE FELLOWSHIP 2010
PhD program full funding (5-years). Department of Music, Stanford University

SELECTED PUBLICATIONS

WAAX: Web Audio API eXtension
Hongchan Choi, Jonathan Berger, *In Proceedings of NIME(New Interfaces for Musical Expression)*, 2013.

An Alternative Implementation of VBAP with Graphical Interface for Sound Motion Design
Hongchan Choi, *In Proceedings of ICAD(International Conference on Auditory Display)*, 2012.

The Deckle Project : A Sketch of Three Sensors
Hongchan Choi and et al., *In Proceedings of NIME(New Interfaces for Musical Expression)*, 2012.

LUSH: An Organic Eco-Musical System
Hongchan Choi, Ge Wang, *In Proceedings of NIME(New Interfaces for Musical Expression)*, 2010.

Advanced Computer Applications for Music Production
Hongchan Choi and et al., ISBN 978-89-93286-20-6, *J&C Communication*, 2009.

A Study and Implementation of Software for Realtime Algorithmic Composition with ChucK
Hongchan Choi, Jun Kim. *In Proceedings of Engineering and Art Society of Korea Conference*, Korea, 2008.

Jitter for Multimedia Music
Hongchan Choi and et al., ISBN 978-89-93286-01-4, J&C Communication, 2007.

A Study on an Interactive Installation Art Using Realtime Slit-scanning with Spectral Delay
Hongchan Choi, Jun Kim. *In Proceedings of Engineering and Art Society of Korea Conference*, Korea, 2007

NATUM: Interactive Audiovisual System Using Max/MSP and OpenGL
Hongchan Choi. Master's Thesis, *Dongguk University*, Korea 2006

REFERENCES

JONATHAN BERGER PHD PROGRAM ADVISER
Chair, Music Department, Stanford University

CHRIS CHAFE
Director, CCRMA, Stanford University

GE WANG
Assistant Professor, CCRMA, Stanford University

WEBSITES

https://ccrma.stanford.edu/~hongchan/
https://github.com/hoch