

Ph.D. Candidate
Center for Computer Research in Music and Acoustics (CCRMA)
Stanford University
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www.kunwookimm.com

Interests: Artful Design, Virtual Reality, Audiovisual Interaction, Human Perception and Cognition

EDUCATION

STANFORD UNIVERSITY

Ph.D. Candidate – Computer-based Music Theory and Acoustics 2019 - Present
- Ric Wieland Graduate Fellowship (2022 – 2024)
- Advisor: Ge Wang

STANFORD UNIVERSITY

M.A. – Music, Science, and Technology 2017 - 2019
- Denning Family Fellowship for the Arts (2018 – 2019)
- Advisor: Ge Wang

JOHNS HOPKINS UNIVERSITY

M.S. – Electrical and Computer Engineering 2012 - 2013
- Advisor: James E. West

JOHNS HOPKINS UNIVERSITY

B.S. – Mechanical Engineering (Music Minor) 2008 - 2012

PORTSMOUTH ABBEY SCHOOL

High School – Portsmouth, RI 2004 - 2008

WORK EXPERIENCE

STANFORD UNIVERSITY

Research Assistant 2022 – 2024
TA Trainer in Department of Music 2022 – 2024

STANFORD UNIVERSITY

Teaching Assistant 2020 – 2022

SENA TECHNOLOGIES

Research Engineer in Acoustics 2014 – 2017

JOHNS HOPKINS UNIVERSITY

Teaching Assistant 2012

TEACHING EXPERIENCE

STANFORD UNIVERSITY

Teaching Assistant

<i>Music, Computing, Design: The Art of Design</i>	2020 Fall / 2021 Fall
<i>Intermediate Tonal Theory</i>	2022 Spring
<i>Compositional Algorithms, Psychoacoustics, and Computational Music</i>	2022 Winter
<i>Ear Training I / Ear Training II</i>	2021 Winter
<i>Psychophysics and Music Cognition</i>	2021 Spring

JOHNS HOPKINS UNIVERSITY

Teaching Assistant

<i>Circuits</i>	2013 Fall
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SELECTED WORKS

PROJECT VVRMA: ADVENTURES IN COMPUTER MUSIC LAND!

Designer 2022 – Present

Project VVRMA is to be an interactive, audiovisual, fully immersive field trip to a VR reimagining of CCRMA, Stanford's computer music research center. VVRMA will take the form of a publicly available VR app aimed at a general audience with a vision of "VR Exploratorium for Music and Technology".

DOES PERFORMANCE MONITORING DIFFER BETWEEN SCORED AND IMPROVISED MUSICAL ACTIONS?: A TURN-TAKING PIANO-DUET EEG STUDY

Researcher, Author 2019 – Present

This is empirical research in auditory neuroscience, where we investigate into neural correlates of performance monitoring during score-playing or improvisation piano-duet. (Manuscript, in preparation).

AURA / AURA.VR

Designer 2019 / 2021

Aura is a SLOrk (Stanford Laptop Orchestra) ensemble performance using physical lanterns that change in color and brightness based on the sound played by the performers. *Aura.VR* translates this physical ensemble performance into virtual reality.

MIDI.CITI. / MIDI.CITI.VR

Designer 2019 –2020

MIDI.CITI. is an interactive audiovisual software where a generative drum machine is mapped to an aesthetic visual cityscape. *MIDI.CITI.VR* has *MIDI.CITI.* transplanted into the medium of virtual reality.

THE FISHERMAN: LAST-WILL ON HUMAN SENTIMENTS

Designer 2018

The Fisherman has three chapters of audiovisual narratives of human perspectives on need vs value, time, and empathy that can be experienced in VR. These narratives contain audiovisual interactions based on real-time computer music algorithms.

MUSIC AND EVOLUTION

Designer 2017

Music and Evolution is an interactive audiovisual essay on the development of music in parallel to human evolution.

ACOUSTIC MONITORING SYSTEM AND METHODS – PATENT US20140126732

Co-inventor 2010 – 2013

DESIGN AND ANALYSIS OF A RESPIRATORY SOUND SIMULATOR FOR TESTING CHEST AUSCULTATION STETHOCOPEES

Researcher 2013

TALKS

Art + Tech Salon, Stanford University (*Speaker*) 2022

Think 66: “Video Games: An Artful Medium!?” (*Guest Speaker*) 2022

Harker Programming Invitational (*Panelist*) 2021

Artful Design Television (*Host*) 2020

Stanford XR, Stanford University (*Speaker*) 2019

AWARDS

Ric Weiland Graduate Fellowship in Humanities and Sciences 2022

Two-year awards made to exceptional rising fourth year doctoral candidates in the humanities, social sciences, mathematics, and statistics.

Centennial Teaching Assistant Award 2022

CTA recognizes outstanding teaching assistants (TAs) for their tremendous service and dedication in providing excellent classroom instruction for Stanford Students.

Denning Fellowship for the Arts 2018

Full Scholarship for Stanford’s CCRMA MST program

Pi Tau Sigma

International Mechanical Engineering Honor Society 2012