KEVIN HUANG

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SUMMARY

Electrical Engineering PhD student at University of Southern California studying speech production with the Signal Analysis and Interpretation Laboratory. Over a decade of coding experience and a strong background in Computer Science. Research focuses on speech, but interests extend broadly to a range of topics in audio, including but not limited to real-time processing, source separation, and music information retrieval.

EXPERIENCE

Reasearch Assistant

University of Southern California

📅 August 2023 – Present

- Research Assistant at USC for the Signal Analysis and Interpretation Laboratory.
- Applying Machine Learning to study human speech production and language proficiency from real-time MRI.
- Refining speech analysis pipelines to evaluate language proficiency.

Computer Science TA/Tutor

University of California San Diego

📅 April 2018 – March 2021

- Teaching Assistant for Computer Graphics in Fall 2020, and Computer Animation in Winter 2021, and Tutor for various courses 2018-2020 including Discrete Math, Digital Systems, and Computer Graphics, for a total of 8 quarters.
- Responsibilities include preparing for discussion sections, holding office hours, and grading

Intern

Webroot Cybersecurity

📅 June 2018 - September 2018   ⚲ San Diego, CA

- Summer internship working with a small team of 4 peers to revamp a DNSP agent distribution portal from scratch
- Used an Angular front-end with a Node.js back-end connected to a MySql database

EDUCATION

PhD Electrical Engineering

University of Southern California

📅 August 2022 - Present

- PhD in EE-Signal Processing
- Minor in Linguistics

BS/MS Computer Science

University of California San Diego

📅 Sept 2016 - June 2021

- Master's emphasis on Machine Learning
- Double minor in Mathematics and Music Computing & Arts

SKILLS

Ordered by decreasing familiarity
- Languages: Python, C++, Javascript, C#, C, Java, R, Rust
- Libraries: PyTorch, OpenGL, Tensorflow, Angular, React
- Technologie: Unity, Blender, Pure Data, Microsoft Excel, Ableton

SELECT PROJECTS

RASPPPy

📅 Fall 2023 - Present

- Visual programming language for prototyping real-time audio applications
- Written in Python and JavaScript

Klatt Voice Synthesizer

📅 Winter 2020

- MIDI controllable source-filter voice synthesizer, with real-time queueable phonemes
- Built for STM32F4 microprocessor written in C, and prototyped with Pure Data