Kevin Huang

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ACADEMIC BACKGROUND PhD Electrical Engineering

September 2021 - Present

University of Southern California, Los Angeles, CA

M.S. Computer Science

Sept 2020 - June 2021

University of California San Diego, La Jolla, CA

• BS/MS with emphasis on artificial intelligence.

B.S. Computer Science

Sept 2016 - June 2020

University of California San Diego, La Jolla, CA

• Minors: Mathematics, Music Computing & Arts

EMPLOYMENT HISTORY Research Assistant

August 2023 - Present

University of California San Diego, La Jolla, CA

- RA in the Signal Analysis and Interpretation Laboratory at USC.
- Primarily working on research studying speech production mechanics. Also involved in multiple projects developing speech analysis pipelines.

Teaching Assistant

Sept 2020 - March 2021

University of California San Diego, La Jolla, CA

- TA under the computer science department at UCSD for two quarters
- Responsibilities include preparing for discussion sections, holding office hours, and grading

Tutor

April 2018 – March 2020

University of California San Diego, La Jolla, CA

- Tutor under the computer science department at UCSD for seven quarters and two summer sessions
- Responsibilities include holding lab/office hours, grading homeworks and tests, and helping communicate course content to students

Intern

June 2018 - September 2018

Webroot Cybersecurity, 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.is back-end connected to a MySql database

Student Worker

Summer 2017

San Joaquin County Office of Education, Stockton, CA

- Helped teach Lego robotics summer camps
- Volunteered throughout the five prior years, which in addition to helping teach after-school and summer classes, helped perform various maintenance tasks around the robotics lab

TEACHING EXPERIENCE

TA - UCSD

- Fall 2020: CSE 167 Computer Graphics
- Winter 2021: CSE 169 Computer Animation

Tutor - UCSD

- Spring 2018: CSE 140L Digital Systems Lab
- Fall 2018: CSE 20 Discrete Math
- Fall 2018: CSE 167 Computer Graphics
- Winter 2019: CSE 140(L) Digital Systems
- Spring 2019: CSE 140L Digital Systems Lab
- Summer 2019 I & II: CSE 140 Digital Systems
- Fall 2019: CSE 167 Computer Graphics
- Winter 2020: CSE 167 Computer Graphics

PAPERS

Publications

- Dubnov, S., Chen, K. & **Huang**, **K.** (2022) "Deep Music Information Dynamics", Journal of Creative Music Systems. 1(1). doi: https://doi.org/10.5920/jcms.894
- Xu, A and Kevin Huang and Tiantian Feng and Helen Tager-Flusberg and Shrikanth Narayanan

Course Related

- "Towards Cross-Cultural Analysis using Music Information Dynamics," for CSE 298 Independent Study, 2021
- "Sparsity in Nonnegative Matrix Factorization," for CSE 205 Convex Optimization Algorithms, 2021.
- "Mel2Mel: A C-GAN architecture to improve the quality of parametric singing voice synthesis," for MUS 206 Experimental Studies Seminar, 2020.
- "Evaluating Frequency-Based Fake Object Detection Models in Practice" for CSE 253 Neural Networks/Pattern Recognition, 2020.

SKILLS

- Programming Languages: Python, C++, C#, Java, C, Verilog, F#, Javascript
- Libraries: Tensorflow (Keras), PyTorch, OpenGL
- Software: Unity, Blender, Pure Data, Ableton