JAMES LI

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EDUCATION

Bachelor of Science

University of California, San Diego

Sep 2018 – June 2021

- Computer Engineering, 3rd Year, Provost Honors, HKN, *3.83*
- Selected coursework: Software Engineering, Advanced Data Structures, Deep Learning, Computer Graphics, Data Science in Practice, Components and Design Techniques for Digital Systems, Introduction to Computer Architecture, Design and Analysis of Algorithms, Programming Languages: Principles and Paradigms, Circuits and Systems, Components and Circuits, Linear System Fundamentals

EXPERIENCE

Research Intern

UCSD ECE Summer Research Internship Program

June 2020 – Now San Diego, California

- Developing a IOT RC car that will be used in UCSD ECE 140 (The Art of Product Engineering) curriculum.
- Implementing communication and networking API using MQTT and sockets to enable general car-to-cloud communication.
- Prepares weekly scrum updates and documents research process.
- Technologies: Python, MQTT, Firebase, mySQL, WebSockets, Raspberry Pi

Software Engineering Intern

Duplicall Co. Ltd

June – August 2019 Shanghai, China

- Developed a backend program that separates a mono-channel two-speaker audio file to speaker-partitioned audio files.
- Separates speakers based on speaker identity to improve automatic speech transcription accuracy.
- Interfaced and implemented Kaldi speaker verification to achieve speaker segmentation and clustering.
- Technologies: Python, numpy, Kaldi, scikit-learn, PyAudio

PROJECTS

Smart Class Scheduler, ASAP

March 2020 – June 2020 https://github.com/JamesOnEarth/ASAP

- Collaborated with a group of ten to develop ASAP, a web application that calculates the best schedule for a UCSD student.
- Developed the core group interval scheduling maximization algorithm.
- Technologies: Python, mySQL, Socket.IO, Javascript/HTML/CSS

IEEE Robocup Soccer, Team Lead

October 2019 – Now

- Developing a soccer-playing robot to compete in the international Robocup soccer league.
- Team lead, responsible for arranging weekly meetings and leading technical workshops.
- Technologies: C, C++, STM32

Autonomous Line Vehicle, GrandPrIEEE, Most Unique Design Award by IEEE

September 2018 – June 2019

- Developed a RC vehicle that tracks and follows white line. Implemented PID controller, and designed custom PCBs and digital filters
- Awarded Most Unique Design Award by IEEE UCSD Branch.
- Technologies: C, C++, Python, Arduino, Autodesk EAGLES

SKILLS

Languages:

Confident with C, Java, Python
C++, JavaScript/HTML/CSS experienced

Experienced Technologies:

Verilog, MATLAB, LaTeX, OpenCV, Unix/Linux, Autodesk EAGLE, Node.js, ARM, AWS, Azure, Firebase, MQTT, mySQL