Justin Shao

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Education

University of California, Los Angeles

Expected Jun 2022

- · BS in Electrical Engineering, Minor in Mathematics, 3.98 GPA
- · Relevant Coursework: Systems and Signals, Digital Signal Processing, Internet of Things, Digital Imaging, Computer Organization, Machine Learning, Speech and Image Processing Systems Design, Feedback Control

Other Coursework

- · Coursera Discrete Math for Computer Science Specialization, Math for Machine Learning Specialization
- · edX -Embedded Systems: Microcontroller Input/Output, Multi-Threaded Interfacing

Experience

UCLA Electrical and Computer Engineering Department | Teaching Assistant

Oct 2019 - Jun 2020

- · Tutored electrical and computer engineering students in the honors lower division physics courses
- · Hosted weekly tutorial review sessions to help with class material and homework assignments

UCLA Engineering, Sensors and Technology Laboratory | Undergraduate Research Intern Jun 2019 – Mar 2020

- · Research intern at UCLA School of Engineering through the Summer Undergraduate Research Program
- · Worked on the electroplated magnetic shielding project in the Sensors and Technology Laboratory in the Electrical and Computer Engineering department
- · Wrote C and Python code to automate measurement of magnetic fields within a shield's geometry
- · Measured the magnetic field using a magnetometer on a PCB connected with Arduino
- · Ran simulations in COMSOL Multiphysics to simulate different shield designs and geometries

Activities and Organizations

HKN, Iota Gamma Chapter

Oct 2019 - present

- · Mentorship chair and active member of the HKN honor society of the IEEE chapter at UCLA
- · Participate in tutoring and leading review sessions for midterm and final exams
- · Responsible for communicating with new inductees into HKN

TBP, California Epsilon Chapter

Apr 2020 – present

- · Member of the TBP engineering honor society chapter at UCLA
- · Membership extended to the top eighth of UCLA's junior class

UCLA IEEE

Oct 2018 - present

- · Member of UCLA's Institute of Electrical and Electronics Engineers club
- · Participating in the Digital Audio Visualizer project, which explores digital logic and FPGA design

Engineering Projects

SensorTile Gesture Detection

Jun 2019

- · Designed state machine code to detect gestures from accelerometer data of a ST SensorTile
- · Used digital signal processing techniques including bandpass and anti-aliasing filters
- · Recognized simple shapes through movement of the sensor on a flat surface

UCLA IEEE OPS

Oct 2018 – Jun 2019

- · Member of UCLA IEEE Open Project Space
- · Worked on various introductory projects from circuit design and soldering to a remote controlled car

Technical Skills & Abilities

Languages and technologies

· Proficient: C, C++, Python, MATLAB and Octave

Other abilities

· object-oriented programming, data structures and algorithms, signal processing, probability and statistics, feedback control, machine learning, analog circuit analysis including multimeter and oscilloscope analysis