Haoru Xue

858-214-8803 | hxue@ucsd.edu | https://www.linkedin.com/in/haoru-xue/
Job Interest: Software/Hardware Engineering Intern

Education

University of California, San Diego 2018-2022
B.S. Electrical Engineering

- GPA (as of Spring 2020): 3.92/4.0

Experiences

Researcher, Autonomous Scale Robocar with ML and CV 2019-Present

- Developed CV-based autonomous scale vehicles (DonkeyCar platform).
- Designed Advanced Driver-Assistance System (ADAS) with LiDAR and ToF sensors.
- Participated in 2 statewide competitions.
- Engineered on-board electronics and software configurations and conducted image filter designs with OpenCV.
- Collected 100k+ data points for behavioral cloning.
- Worked on GPU clusters at San Diego Supercomputer Center to train AI driver.
- Researcher at Triton-AI club. (http://triton-ai.eng.ucsd.edu/)

Engineering Psychiatry Research Intern 2020-Present

- Designed eye-tracking software with VR for diagnosis of neurological conditions by generating stimuli in virtual 3D space and measuring hand-eye response time and correctness.
- Maintained and developed data tracking, storing, and analysis solutions with C# and Excel.
- Collaborated with researchers and doctors at the Defense and Veterans Brain Injury Center in fieldwork for feedback on applying the technology on patients.

Tutor, ECE Department 2020-Present

- Tutored for ECE 65: Components and Circuits Lab (Diodes, Transistor Amplifiers).
- Tutored for ECE101: Linear System Fundamentals (LTI Systems, Transforms).
- Facilitated class discussions in flipped classroom structure of 100+ students.
- Hosted weekly MATLAB office hour and graded homework problems.

Projects

EnhancedCollision Prevention in Multi-Vehicle Environment
https://guitar.ucsd.edu/maeece148/index.php/2019FallTeam1
Model UN Time-keeping and Minuting Software Project C# https://github.com/FrostXue/VMUN4
Classroom Activity Tracker https://github.com/FrostXue/ClassroomTracking

Skills

Programming and Hardware

- C, C++, C#, Python, MATLAB, Java
- Experience with cloud computing, clusters and embedded Linux systems
- Fast-prototyping: breadboarding, 3D design (Solidworks), soldering, laser-cutting