Eugene Lo

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Education

University of California, Los Angeles *exp. June 2022*

B.S. in Computer Science and Engineering *3.94 GPA*

Work Experience

Kinematics Manufacturing *June - Sept. 2019*

Software Engineering Intern

- Optimized data processing and analysis of rotary dampers via signal processing and writing MATLAB scripts
- Created a web browser app to graphically predict the durability of slew drive worm gears using plotly.js (JavaScript plugin)
- Improved the efficiency of damper tests by writing a PLC program to automate servo motor
- Managed the Research and Development test area

Institute of Electrical and Electronics Engineers *Nov 2018 - July 2019*

Full Stack Web Developer

- Assisted in making the IEEE project portal for members to keep track of their progress
- Developed responsive pages for the member roster and project checkoffs using HTML, CSS, JavaScript, and Vue.js
- Implemented the backend server and RESTful endpoints for users, projects, and assignments using Flask
- Maintained data persistence and relationships using SQLAlchemy

Projects

IDEAHacks Website *July 2019*

- Worked with a committee to develop this year's website for IDEAHacks, UCLA's hardware-based hackathon
- Implemented the hardware equipment reservation algorithm and team creation algorithm using jQuery
- Designed MongoDB database schemas to store user, team, and parts data
- Designed responsive frontend pages for team parts, parts inventory, parts checkout, and team creation

Gesture-Based Music Controller *May 2019*

- Built remote control for Spotify desktop player based on motion gestures using IoT device with gyroscope and accelerometer
- Developed a serial communication controller to handle computer key binding signals using Pyserial and Pynput

Zero Waste 2020 (LA Hacks) *Mar. 2019*

- Created a complete 2D platformer video game in Unity using C# about recycling and sustainability
- Implemented player movement algorithm and collectible item collision logic
- Rendered score and level UI components and configured camera control for optimal gameplay

Zombie Dash *Dec. 2018*

- Created a shooter-survival video game with C++ for player to fight zombies and rescue hostages
- Developed player and zombie AI movement algorithms and UI elements for score, level, and lives
- Implemented game logic for power-up collisions, weapon usage, and infection

Skills

Programming Python, C++, JavaScript, MATLAB, Java, HTML, CSS, VueJS, ReactJS, NodeJS/Express, Flask, MongoDB, SQL

Other Figma, Computer Hardware Assembly

Extracurricular Activities

Engineering Captain *Aug. 2014 - May 2018*

Walnut Robotics

- Oversaw the mechanical and electrical process and design of the team robot
- Served as the main driver of the robot in all qualifier, regional, and super-regional level competitions

Achievements & Recognition

2019 **Honor Societies** Tau Beta Pi

2018 **National Merit Finalist,** National Merit Raytheon Scholarship

2018 **Raytheon Management Scholarship**