Rosswell Tiongco

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EDUCATION

California State University, Long Beach — Expected: Dec 2019
Bachelor of Science, Computer Engineering with Honors — Cumulative GPA: 3.95

WORK EXPERIENCE

Software Engineering Intern | Filtec — May 2018 - Aug 2018

- Wrote python tool to parse and query thousands of console log entries into a sqlite database
- Implemented full stack flask application to continuously monitor in house test machines
- Tested and documented software builds to ensure system and customer requirements are met

Computer Science Instructional Student Assistant | CSULB — Jan 2018 - May 2018

- Communicated with students to ensure laboratory objectives are met on time
- Facilitated students' learning of Python laboratory projects to resolve programming conceptual issues
- Evaluated assignments from 80+ students to provide fair assessment

PROJECTS

Autonomous Maze Solving Robot | IEEE — Mar 2017 - Present

- Developed motor and sensor hardware programs in C to implement a maze solving algorithm
- Redeveloped stepper motor library with a partner to accommodate malfunctioning stepper motor
- Optimized code to consume less power and solve the maze with the shortest path

IoT Smart Waste Collector | UCSB Hackathon "Best IoT Hack" Winner — Jan 2018

- Programmed Qualcomm Dragonboard 410C in Python to track barcodes and nutritional information
- Created Python parser to extract data from a database to win "Best IoT Hack" at UCSB Hackathon
- Demonstrated and communicated the details and implementation of the design to event officials

FM Transmitter | Personal — May 2017 - Dec 2017

- Built and soldered an analog circuit to convert headphone audio jack signals to fm frequencies
- Troubleshot and tested circuit with various tools and equipment to ensure the systems oscillated signal
- Simulated circuit designs to verify the design and select the most appropriate components

Six Jointed Robotic Arm | Personal — Jan 2017 - May 2017

- Built and programmed six degrees of motion controlled with two joysticks to enhance user dexterity
- Programmed C to implement servo positional memory, incrementation, and joystick acceleration
- Distributed power efficiently to transport heavy loads such as an irregularly shaped 97g object

LEADERSHIP & INVOLVEMENT

President | CSULB Embedded Applications Club — Jan 2018 - May 2018

- Designed and instructed curriculum for a series of servo and power supply workshops for 15+ members
- Coordinated and prepared general body meetings serving 30+ members
- Negotiated with College of Engineering to fund submarine project valued at $200

TECHNICAL SKILLS

Software: Python, C++, C, Verilog, SQL, HTML, CSS, Linux, Windows, MS Office

Hardware: ARM Cortex M4/A53, TM4C, 8051, ATmega328, Soldering/Basic Electrical, FPGA

Development Tools: Git, Xilinx ISE Design Tools, Keil C51, Arduino, Multisim, LTSpice, Jira issue tracking