Jerry Lee

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EXPERIENCE

CAL PLUG LOAD RESEARCH CENTER | Engineer Researcher
Jan 2018 - Current | Irvine, CA
- Developed and demonstrated prototype control systems as retrofit solutions for energy consumption management of plug load devices in commercial settings
- Worked on various implementations of low-power embedded systems with Espressif Systems that use RTOS, I2C and SPI protocols to create an IoT device
- Developing energy assessment software used by electrical utilities & researchers

NIAGARA BOTTLING | R&D Engineering Intern
Jun 2018 - Aug 2018 | Ontario, CA
- Developed a low latency system to retrieve and log data of bottles during blow molding stage in manufacturing process using switch sensors and a micro-controller
- Contributed to improving future designs and optimizing production methods of bottles with the data retrieved by developed system and software

VISTA IT | Information Technology Intern
Jun 2016 – Aug 2016 | Temple City, CA
- Provided end user support for over 30 companies at a Microsoft partnered Information Technology firm with a team of 5 IT Specialist
- Facilitated configuration and implementation of servers and networks

PROJECTS

SOLAR VEHICLE | Telemetry Lead
Oct 2017 – Current
- Developing telemetry system to transmit information regarding the battery array, solar array, and various sensors from throughout the vehicle to team
- Competing in the American Solar Challenge Formula Grand Prix, an initiative to promote a greater understanding of solar energy technology and educational excellence in engineering

DRAGON BOAT LAYOUT OPTIMIZER
Dec 2017 - Jan 2018
- Built a python program to help teams generate optimized boat layouts
- Developed algorithm to configure boats for optimal paddler placements based on individual trial times, weight, gender, and preferred side of boat

RSHELL
Apr 2017 – Jun 2017
- Built a terminal shell processor with scripting capabilities similar to bash such as parsing commands, flags, and connectors using C++
- Utilized composite design strategies, git branches, and agile methodology

LEADERSHIP

MICROMOUSE | Robotics Coordinator
Sep 2017 - Current
- Instructing students in designing and building software and hardware of autonomous robotics with the goal of solving a 16x16 maze
- Developed maze-solving device using flood-fill algorithm and closed-loop control
- Placed in top three in 3 out of 4 collegiate competitions

EDUCATION

UC IRVINE
BS in Computer Engineering
Expected Grad: Winter 2020
Major GPA: 3.46/4.00

UC RIVERSIDE
Years attended: 2015-2017
Major GPA: 3.43/4.00

SKILLS

Languages:
- C++ • C • Assembly (LC-3, RISC-V)
- Python • System Verilog • SQL
- LaTeX • CSS/HTML

Software/Platforms:
- Git • Autodesk Eagle • Eclipse • Vivado
- Xilinx Design Studio
- SolidWorks • Keil uVision
- Linux Operating Systems

Hardware:
- PCB Design • Arduino • ARM STM32
- ESP32 & ESP8266
- Digilent FPGA Basys2 & Basys3
- Lattice iCE40 FPGA

INTERESTS

- Music Performance • Power Lifting
- Olympic Weight Lifting • Golf
- Cinematography • Fashion • Art
- Paddling (Dragon Boat) • Astronomy
- Astrophotography • New Technologies

AFFILIATIONS

- Inst. of Electrical & Electronics Engineers
- Association for Computing Machinery
- UC Irvine Elements Dragon Boat
- Zotbotics - UC Irvine Robotics Club
- Unmanned Aerial Vehicle - Forge
- Micromouse @ UCI