

Alina Suon

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Education

California State University, Long Beach

Major: Computer Engineering | Senior Standing

Long Beach, CA

Expected Graduation: May 2020

Technical Skills

Programming: Python, C++, Java, Verilog, MATLAB, Assembly (Arm, 8051), VHDL

Tools: Electronic Design Automation (EDA) - Xilinx ISE Design Suite, LTSpice, Vivado

Software Development - Keil μ Vision, Microsoft VisualStudios, Dev C++, Eclipse

Project Experience

UART

March 2019

Project Lead

- Developed a circuit for asynchronous communication to transmit and receive serial data
- Verified the receive engine through test fixtures to show synchronized data collection with the TX engine
- Created a Chip Specification (SOC) report to document successful UART chip design

Smart Bartender

October 2018

Project Member

- Constructed 12' x 16' autonomous bartending machine utilizing a raspberry pi circuit to dispense beverages
- Programmed Raspberry Pi to manage between drink possibilities and pump configurations to display on LCD
- Assembled electrical circuit on printed circuit board by following schematic
- Wired and soldered switches, buttons, and motors to the printed circuit board

PONG Simulation

September 2018

Project Lead

- Developed a computer game using a FPGA to simulate and play system on a monitor console
- Programmed a VGA controller in Xilinx to generate synchronous signals and outputs the data pixel serially
- Coded a pixel generator to create fixed objects and designate pins to output colors
- Created a self-checking test fixture in Verilog to verify synchronous digital design of program

Autonomous Line Following Robot

April 2018

Project Member

- Designed a two-wheel dc motored autonomous robot using analog feedback to follow a course path
- Developed LTSpice models for analog circuit design to demonstrate theoretical functionality
- Constructed the circuit with IR photocell sensors to detect the course path

Professional Affiliations

Theta Tau - Professional Engineering Fraternity [Member]

October 2018 – Present

- Organized 5+ service and brotherhood events for 40+ members to ensure personal and professional success

Society of Women Engineers (SWE) [Member]

February 2017 – Present

Embedded Applications Technology Society (EAT) [Member]

September 2016 – Present

Volunteer

MAES - STEM Outreach

April 2019

- Lead workshops on hurricane resistant structures to expose students to STEM fields
- Engaged students in workshop to promote problem-solving skills, creativity and teamwork / collaboration

Bolsa Chica Conservatory

October 2018 – November 2018

- Restored the natural habitats of the wetland by reducing environmental debris and invasive plants species
- Conducted research on native and invasive plants within the habitats of the wetland

The Children's Clinic (TCC) Annual Walk

October 2018

- Managed event booths for incoming participants and enforced directed traffic for attendees
- Raised awareness of the care, service, education, and outreach of TCC to the Long Beach community

Interest and Hobbies

Power supply unit, environmental technology, mechanical engineering, graphic design, cars, skateboarding