Rosswell Tiongco

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Education

California State University, Long Beach (CSULB)

Bachelor's of Science in Computer Engineering

Spring 2020

Cumulative GPA: 4.0

Oxford Academy, Cypress

High-School Diploma • Graduated with Honors

Spring 2016

Projects

Arduino Uno Robotic Arm

January 2017

 Assembled and programmed a robotic arm with four degrees of freedom through four 9g servos via Arduino and manually controlled by mouse or two joysticks

Poor Man's Macbook January 2017

• Applied creative thinking to outfit laptop through an LED circuit powered by the usb port upon opening laptop to a fixed angle

Presidential Tweets January 2017

o In a team of four, synthesized the use of Twitter, Esri, and IBM Watson APIs to chart a plot of tweets based on desired keywords on the United States Continental Map from a stored database to generalize tonality of a geographical location

Simple Computer Simulation

December 2017

• Design, implementation, and synthesis of memory, multiplexers, arithmetic and logic unit modules in Xilinx ISE Design Tools written in Verilog HDL to simulate the interaction of processor and memory

Leadership and Activities

Industry Officer • Association for Computing Machinery • CSULB

February 2017-Present

- Chapter liaison to foster communication with companies in industry to host speaker events
- o Collaborate with other programmers when engaging in the weekly programming team
- **o** Learning weekly web development in web jam sessions.

Associated Engineering Student Body Representative Officer • CSULB

November 2017 - Present

- Collaborate and communicate with other College of Engineering clubs in weekly meetings to engage in multidisciplinary future projects
- o Report club activities, goals, and objectives to the College of Engineering

Member • Institute of Electrical and Electronic Engineers (IEEE) • CSULB

December 2016- Present

- Weekly IEEE freshman retention and leadership program to learn more about various electronics such as arduino and soldering with circuit boards
- o Simulated a potentiometer through Arduino to gradually turning an LED on and off over a one second interval

Member • Society of Automotive Engineers • CSULB

January 2017 - Present

- Assisted the measurement and design of a wheel and axle system in solidworks to facilitate proper wheel alignment when undergoing forces to produce a beneficial wheel camber
- **o** Weld, research, spraypaint, and design in solidworks for the construction of an all-terrain and formula one car for bi-annual competitions

Project Co-Lead • Embedded Applications Technology Society • CSULB

January 2017 - February 2017

- Facilitate effective communication and integration of multiple systems of a tethered submarine by combining power, electronic, and repulsion systems in a remotely operated underwater vehicle
- **o** With a team, ensure tethered robotic submarine responds to user control when underwater by soldering and testing the power system to withstand being underwater
- o Diagnose and repair electronic equipment such as powerstrips and desktop fans for fun or for use in future club projects

Technical Skills

Languages: Python, Verilog HDL

Software: Arduino IDE, Xilinx ISE Design Tools, Solidworks