ROBERT URSUA

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SUMMARY

Junior level Electrical Engineering student looking for a coop/internship position. Experienced in embedded systems, circuit/PCB design & testing, and developing web apps & software tools

EDUCATION

UNIVERSITY OF CALIFORNIA – LOS ANGELES
B.S. Electrical Engineering 2018
GPA: 3.925/4.000

CITY COLLEGE OF SAN FRANCISCO
Engineering Transfer 2016
GPA: 4.000/4.000

RELEVANT COURSEWORK

- Data Structures & Algorithms (C++)
- Introduction to Computer Organization (C)
- Circuit Analysis (HSPICE & Multisim)
- Electromagnetics
- Digital Signal Processing (MATLAB)
- Probability and Random Processes in EE (MATLAB)

SKILLS / TECHNOLOGIES

EXPERIENCED: C/C++, Arduino, ARM mbed (RTOS)
WORKING KNOWLEDGE: MATLAB, EAGLE, Javascript, HTML, CSS, Python, HSPICE, Multisim, Git, Linux/Windows

PROJECTS

HOT MEALS – LA HACKS 2017 *(HTML, CSS, Javascript, Node.js, Angular.js)* **Apr 2017**
- As a team, created a platform that directed the hungry to the nearest food banks and participating food places
- Implemented map interface, designed pages using CSS, and integrated pages into the Angular framework.
- Awarded "Best Civic Hack" by the City of Los Angeles

MICROMOUSE ROBOT *(Coded in C++, ARM mbed, Designed in EAGLE)* **Sep 2016 – Mar 2017**
- As a team, built an STM32F4 based robot that finds the fastest route in a maze
- Designed schematics and PCB layouts for motor/sensor interfaces, power system, & microcontroller breakout
- Implemented software for motor control, sensor interfacing, PID feedback control, and maze solving algorithm
- Awarded "Best 1st Year Participant", All American Micromouse Competition 2017

BRUIN NAV *(Coded in C++)* **Mar 2017**
- Created a turn-by-turn navigation system that presents the shortest route for trips within Los Angeles
- Implemented path-finding algorithms and optimal data structures for quick query processing
- Among the top 5% scorers out of 400 students

SMART BARBELL COLLAR – IDEAHACKS 2017 *(Coded in C++, HTML, CSS)* **Jan 2017**
- As a team, built a barbell collar that helps weightlifters maintain proper form through a smart phone app.
- Designed and built circuit for interfacing gyroscopes and accelerometers with the MSP430 LaunchPad.
- Top 9 finalist

MUSIC VISUALIZER *(Coded in C, Designed in EAGLE)* **Nov 2016**
- Created an Arduino based device that displays the spectrum analysis results of input audio onto an LED matrix
- Designed circuits for multiplexing the LED matrix and using the MSGEQ7 audio processing chip with an Arduino

LEADERSHIP / ACTIVITIES

SENATOR **Sep 2015 – Apr 2016**
Associated Student Council, CCSF- Ocean
- Managed public relations campaign that increased student council election voter turnout by 1000%
- Communicated student body issues to administrators and to other students