ROBERT URSUA

robertursua@ucla.edu (415)-802-6165 San Francisco, California bertursua.github.io in linkedin.com/in/robertursua

O github.com/robertursua

SUMMARY

Senior level Electrical Engineering student looking for a coop/internship position. Experienced in test automation, embedded systems, circuit/PCB design, prototyping & testing, and developing software tools

EDUCATION

UNIVERSITY OF CALIFORNIA – LOS ANGELES

B.S. Electrical Engineering – Graduating March 2019 GPA: 3.823/4.000

CITY COLLEGE OF SAN FRANCISCO

Engineering Transfer 2016 GPA: 4.000/4.000

RELEVANT COURSEWORK

- Data Structures & Algorithms (C++)
- Introduction to Computer Organization (C, Assembly) •
- Circuit Analysis (HSPICE & Multisim) •
- Logic Design of Digital Systems •
- Digital Signal Processing (MATLAB)
- Probability and Random Processes in EE (MATLAB)

SKILLS / TECHNOLOGIES

EXPERIENCED: LabVIEW, C/C++, ARM mbed (RTOS), PBC Design: PADS, Autodesk EAGLE USED BEFORE: MATLAB, Arduino, Python, LTSPICE, Javascript, HTML, CSS

PROFESSIONAL EXPERIENCE

ELECTRICAL ENGINEERING CO-OP - HARDWARE DEVELOPMENT Abbott Laboratories

- Developed an Automated MRI Compatibility Testing System that characterizes the effects of MRI Gradient Magnetic Fields on Active Implantable Medical Devices (i.e. Pacemakers, ICDs, Heart Monitors)
- Designed circuits & PCBs for signal routing & amplification. Selected & characterized components. •
- Developed LabVIEW application that controls hardware, processes data, and provides GUIs for test operators

PROJECTS

MICROMOUSE ROBOT (Coded in C++, ARM mbed, Designed in EAGLE)

- As a team, built an STM32F4 based robot that finds the fastest route in a maze
- Designed schematics and PCBs for motor/sensor modules, power system, & microcontroller breakout •
- Implemented software for motor control, sensor interfacing, PID feedback control, and maze solving algorithm •
- Best 1st year Participant, All American Micromouse Competition 2017
- Fastest robot in internal club competition

HOT MEALS – LA HACKS 2017 (Coded in Javascript, CSS, HTML)

- 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

BRUIN NAV (Coded in C++)

- 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 ٠

BRUINWALK BROWSER EXTENSION (Coded in Javascript, CSS, HTML)

- Built a Chrome extension that adds professor ratings and final grade data to class listings in the UCLA website •
- <u>3000+ weekly users and rated 5.0/5.0 stars in Chrome Store Page</u>

MUSIC VISUALIZER (Coded in C. Designed in EAGLE)

- 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

Apr 2017

Mar 2017

Dec 2016

Nov 2016

Jul - Dec 2017

Sep 2016 – May 2017