Nicole Lin

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Objective

Undergraduate student with 6+ years of experience working on team projects integrating mechanical and electrical systems, with an emphasis on embedded system design and implementation. Strong verbal and written technical communication from giving design review presentations and writing documentation. Excited to work on projects with impact; looking for summer 2020 hardware and firmware internships.

Education

Cornell University **expected May 2021**

BS, Electrical and Computer Engineering (GPA: 3.85)

Coursework: Human Robot Interaction, Foundations of Robotics, Intelligent Physical Systems, Embedded Systems, Computer Systems Prog., Operating Systems, Computer Architecture, Discrete Structures

Work Experience

Cornell Rapid Prototyping Laboratory **Spring 2018-present**

Laboratory Technician

+ Operate and maintain laser cutter and 3d printers for project teams, research groups, and students
+ Consult lab users on how to make improvements to their part designs for optimal print quality
+ Debug operation failures and troubleshoot faulty machines to keep the lab up and running

Boosted, Inc. **Summer 2019**

Firmware Engineering Intern

+ Refactored motor controller code by improving and restructuring PWM and ADC drivers for dsPIC33
+ Tracked over twenty issues related to operational state logic in the Boosted Rev BMS and display
+ Soldered and spliced over ten cables in active use for firmware updates and flashing over CAN
+ Designed and programmed a firmware development PCB that acts as a message router between the computer and the SoCs in Boosted vehicles, communicating over UART, USB, Bluetooth, and CAN

Cornell University, ECE 2300 Digital Logic and Computer Organization **Fall 2018**

Teaching Assistant

+ Helped students troubleshoot their microprocessor component designs in Verilog using Quartus
+ Answered questions about course material including timing, FSMs, memory, and circuit logic
+ Graded student assessments, homework, and labs, giving insight into how many solutions exist

Projects

limband **Fall 2017**

Wearable device that displays the status of a user-inputted workout using LEDs

+ Handled raw data output by GPS: collection, calculation, and transfer to device microcontroller
+ Worked with teammates to integrate components in software, and package the hardware

Awards: *BigRed//Hacks Best IoT Hack Sponsored by Lutron*

Extracurricular Experience

Baja SAE Off-Road Vehicle Project Team **Fall 2017-present**

Electronics Sub-team Member

+ Calibrated sensors and wrote data logging script for brakes coefficient of friction and pad wear tests
+ Verified previously designed strain gage amp. board PCB by completing board bring up and testing
+ Certified in Emerson Lab machine shop (mill and lathe), including reading and making part drawings

Skills

Programs: Altium Designer, EAGLE, SolidWorks, Autodesk Inventor, GrabCAD, HSMWorks, Matlab, LaTeX
Maker Skills: 3D printing, Laser cutting, Soldering, TIG welding, Basic woodworking, Scripting, PCB bring-up
Programming Languages: C, C++, Verilog, Java, Python

References available upon request