JEFFREY CHEN

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Education

University of California, Los Angeles
B.S., Electrical Engineering
March 2018 | GPA: 3.73

Coursework

+ Computer Systems Architecture
+ Logic Design of Digital Systems
+ Principles of Feedback Control
+ Digital Signal Processing
+ Circuit Theory
+ Introduction to Algorithms
+ Comp. Networks: Physical Layer
+ Intro to Computer Graphics

Honors

+ Eta Kappa Nu Honor Society
+ Dean's Honor List (W '15, S '15)
+ 2015 – 2016 Eric and Peggy Johnson Scholarship in Engineering

Skills

Programming Languages

+ C / C++
+ C#
+ Java
+ HTML / CSS
+ Javascript
+ SQL
+ Linux

Software

+ MATLAB
+ Microsoft Visual Studio
+ CadSoft EAGLE
+ Siemens Teamcenter/NX
+ Tableau

Hardware

+ Schematic Capture/PCB Design
+ Systems Integration
+ Embedded Systems/Firmware
+ Atmel AVR

Professional Experience

Space Exploration Technologies (SpaceX), *Hawthorne, CA* *Sept 2016 - Present*
Avionics Intern, Vehicle Build Engineering

- Undertook the full design and release of an updated drag-on electrical harnessing kit for the Falcon 9 2nd stage engine, including communicating requirements across departments, routing harnesses in Siemens NX CAD, and creating formboard drawings and manufacturing instructions
- Developed SQL-based Tableau dashboard metrics tools to provide vehicle integration team with summary overviews of net build efficiency and to identify potential areas for improvement in build processes

Northrop Grumman Corporation, *Redondo Beach, CA* *July 2016 – Sept 2016*
Systems Engineering Technical Intern, DARPA 100G

- Architected client-server model including air-to-ground node links to support development of system controller interfaces for a 100Gb/s RF backbone communications system

Engineering Projects

Custom Auto-Stabilized Quadcopter

- Built quadcopter running custom-written flight control software on the ATmega328 AVR microcontroller
- Exploited low-level AVR architecture features via direct read/writes to register maps in order to optimize performance of a 200 Hz closed-loop control system
- Implemented feedback control using IMU gyro and accelerometer readings fused via linear complementary filter

2014 – 2015 UCLA Rocket Project (URP)

- Participated in the design of the avionics payload and sensor package for a supersonic hybrid propulsion rocket
- Analyzed telemetry data collected from past launches to provide propulsions team with data for burn time calculations

Technical Leadership

IEEE Student Branch at UCLA | *Advanced Projects Co-Lead, 2016-2017*

- Leading the inaugural year of a new student project which will guide teams of students through a year of applied projects in electrical engineering concluding with a capstone PCB quadcopter project
- Preparing lectures and lab content in a variety of topics focused around embedded systems design, including hardware communications protocols (Serial, I^2C, SPI), power systems, embedded software development, and control theory

UCLA Eta Kappa Nu Honor Society | *Workshops Chair, 2015-2016*

- Prepared and delivered a series of tutorials throughout the year teaching students how to use MATLAB software and catering to a variety of experience levels