# Nicholas Chung

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# **EDUCATION**

# Bachelor of Science in Electrical Engineering

Jun. 2017

• GPA: 3.50

# Coursework to be completed as of

Mar. 2017

- EE: Systems Design Capstone, Digital Speech Processing II
- CS: Modeling and Simulation of Biological Systems

## Coursework completed as of

Dec. 2016

- CS: Computer Science I/II, Discrete Structures, Introduction to Algorithms
- EE: Digital Signal Processing, Intro to Digital Systems, Control Feedback Theory, Graph Theory, Analog Circuits, Speech & Image Processing

# **PROJECTS**

## Team Member

# Orchestra Anywhere

Oct. 2016 - Present

Final project for capstone design course using localization and gesture recognition to play music.

- Calibrating 9DoF sensors and filtering noise using a Kalman filter to classify measurements
- Using TCP/IP sensor network to process IMU measurements and estimate user's location

### Team Member

# **IEEE: Advanced Projects**

Oct. 2016 - Present

- Implemented SPI and I<sup>2</sup>C on two microcontrollers to learn fundamental communication concepts
- · Building a mini-quadcopter that will have a PID controller and communicate with a computer

#### Team Member

#### IEEE: NATCAR

Sept. 2014 - Mar. 2015

- · Built components of the line-following car, including an H-bridge, AFE sensors, and a wave rectifier
- Designed and printed a PCB using EAGLE to process input sensory data from a line sensor

## **EXPERIENCE**

#### Team Member

# **Project Premonition**

Nov. 2015 - Oct. 2016

Microsoft research aimed at detecting pathogens prior to outbreaks using drones and mosquito traps.

- Translated existing MATLAB code to Simulink block diagram for easier controller simulation
- Understand the PID control for position in the Pixhawk and where to add a Kalman filter

## Student Intern

## EPSS Lab at UCLA

Jun. 2016 - Oct. 2016

- Developed schematics and pcb layouts for various component libraries following IPC standards
- Debugged and collected measurements while testing various circuit boards

## **LEADERSHIP**

# **VP of Operations**

**IEEE-HKN: Honors Society** 

Sept. 2015 - Jun. 2016

- Supported officers with weekly meetings and clarification of responsibilities
- Coordinated Q/A panels, department townhalls, and professional-development workshops

# **SKILLS**

- CS: Java, C, C++, HTML/CSS, Python, Git
- EE: Altium, LTSpice, Logisim, MATLAB/Simulink, LabVIEW, LaTEX, Soldering