

# Nicholas Chung

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## EDUCATION

**Bachelor of Science in Electrical Engineering, UCLA** Jun. 2017

- GPA: 3.50

**Coursework to be completed as of** Mar. 2017

- EE: Digital Control of Physical Systems
- CS: Fundamentals of Artificial Intelligence

**Coursework completed as of** Dec. 2016

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

## PROJECTS

**Project Member** **Orchestra Anywhere** **Oct. 2016 - Mar. 2017**

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

- Built multi-threaded TCP/IP network using Python and C to interface Intel Edison's and MATLAB
- Refactored (using Git) 500 lines of Python and C code to improve readability and documentation
- Implemented, tested, and debugged gesture recognition based on user input through an IMU
- Supported real-time gait-tracking development combining open-source software and windowing

**Team Lead** **IEEE: Advanced Projects** **Oct. 2016 - Present**

- Integrating radio, IMU, and microcontroller modules to build a mini-quadcopter
- Tested and debugged individual modules regarding SPI, I<sup>2</sup>C, and low-side switching
- Designed a 2-layer PCB using EAGLE to compactly contain surface-mount components

**Project 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
- Researched potential applications of a Kalman filter to supplement the PID code in Pixhawk

**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: C, Python, C++, Git, LaTeX, HTML/CSS, Java,
- EE: MATLAB/Simulink, EAGLE Schematics, LabVIEW, Altium, Logisim, LTSpice