Brennan Keegan

www.linkedin.com/in/brennankeegan • 2490 California St. Apt. 6, San Francisco, CA 94115
brennan.keegan@gmail.com • (650) 785-1208

Experience

Tesla Motors — **Palo Alto, CA**
Test Engineer – Vehicle Electrics — **Jan. 2015 - Present**

- Owns test design, physical test execution, and data analysis for reliability and development testing of over 15 PCBs throughout Tesla's low voltage architecture
- Designs custom circuitry for test infrastructure, including full board bring-up and iterative development of "Low Voltage Box" board in Altium—improved design and layout in 12V buck converter to support 2 times higher current
- Automates testing using Python, CAN, and microcontroller scripts to cut manual work time and improve data analysis
- Rapid debugging of circuit boards and test equipment to determine root cause of failure
- Analyzes data to determine test results, directly used to build design confidence and expose risks
- Received promotion after 11 months with Tesla

Climate Environment Services Group — **Shanghai, China**
Data Collection Team Manager — **June 2013 - Aug. 2013**

- Designed and implemented efficient process for mass data collection of Chinese transport statistics at a small start-up
- Managed team of five Chinese interns in collecting and importing over 100,000 data points into company transport database during a 5 week period
- Used Chinese language and research skills to investigate and document the body of China's available transport data

Relevant Projects

Mixtape Audio Board (GitHub) — **Oct. 2016 – Dec. 2016**

- Compact PCB for use as a modern "mixtape" to share playlists and recordings, parts received and built Dec. 2016
- Audio circuit using Teensy microcontroller and a Class-D amplifier IC
- Bluetooth control using plug-in module, with power from an Li-Ion 18650 battery

Li-Ion Charge Board (GitHub) — **Aug. 2016**

- 18650 lithium ion charger board to provide up to 4.2V power for portable projects; charges battery via micro-USB
- Charge control IC regulates constant current and constant voltage modes for effective charging

Education

The Hopkins-Nanjing Center for Chinese and American Studies — **Nanjing, China**
M.A. International Studies — **June 2014**

- Concentration: International Economics
- Curriculum primarily taught in Mandarin
- 2014 "Outstanding Master's Thesis" Award
- Master's Thesis: ***Analysis on Efficient Distribution of China's Wind Energy***
  Chinese-language thesis used Python and GIS data to examine regional differences in per-MWh cost of wind vs. coal

University of Maryland, College Park — **College Park, Maryland**
B.S. Electrical Engineering — **May 2012**

- GPA: 4.00
- 2012 University Medal Finalist (5 finalists selected from 5,000+ students)
- Minor: Music Performance (Piano)

Interests: Open-source Hardware, Cleantech, Folk Songwriting, Hiking, Travel