Sunny He

sunnyhe.org
slhe@princeton.edu

Education

Princeton University, Princeton, NJ June 2018

B.S.E in Electrical Engineering, Certificate in Applications of Computing (CS)
Coursework includes: Algorithms and Data Structures; Programming Systems; Computer Architecture; Embedded Computing; Electronic Circuits; Image Processing; Information Signals
Cumulative GPA: 3.7/4.0

Experience

NVIDIA, Santa Clara, CA – *Software Intern* June – August 2017

Developed core system software for the Tegra line of mobile SoC's. Root-caused and fixed bugs in the NVIDIA Linux Tegra device driver. Overhauled the GPU driver hardware abstraction layer and created internal tools to aid in identification and debugging of cross-architecture code dependencies.

Electric Imp, Los Altos, CA – *Maker in Residence* June 2016 – April 2017

Worked closely with engineering and business teams to create Internet of Things solutions for industries ranging from industrial monitoring to consumer goods. Devised proof-of-concept demonstrations for potential customers and partners. Applied design for manufacturing and rapid prototyping techniques to quickly bring products from concept to completion.

Sandia National Laboratories, Livermore, CA – *Technical Undergraduate Intern* June - August 2015

Collaborated with multidisciplinary team of analysts and other interns on an open-ended research project related to cyber supply chain security. Produced report on findings and presented briefing to team members and senior staff. Recommendations incorporated into development of a product for the Department of Homeland Security.

Leadership and Community Involvement

Princeton Rocketry Club, *Electrical Engineering Mentor* Fall 2016 – Present

Organized workshops and weekly build sessions to teach new members electronics and system design fundamentals. Assisted design and development of avionics and power systems for projects including high altitude balloon and NASA CanSat competition vehicle.

Princeton Autonomous Vehicle Engineering, *Electrical Systems Lead* Fall 2014 – Spring 2017

Managed design and installation of electrical subsystems to convert a 2013 Ford Focus to autonomous drive. Improved project management and communications skills by coordinating tasks assignment and scheduling between PAVE sub-teams.

Council on Science and Technology StudioLab, *Student Ambassador* Fall 2016 – Present

Projects

Junior Project – Perform radio moon ranging experiments on the Project Diana dish Fall 2016

Develop DSP algorithms with GNURadio, Numpy, and USRP software defined radios

PolitEcho – Determine political bias from your Facebook friends and news feed Fall 2016

Facebook Global Hackathon Finals 2016 – Honorable Mention
https://politecho.org

Carvis – Autonomous sound-localizing guard robot built on a RC car chassis Spring 2016

https://github.com/AG6GR/Carlab-Report

PANDA - IoT pillbox that reminds you when to take your medicine Fall 2015

HackPrinceton Fall 2015 - 3rd Place Hardware Hack and Facebook's Favorite Hack
https://github.com/AG6GR/PANDAv2

Skills

Python, C/C++, Java, JavaScript, Squirrel, MATLAB, Android, UNIX/Linux, Microsoft Office
Altium Designer, KiCAD, EAGLE, SPICE, AutoCAD, Adobe Illustrator, OpenSCAD, Blender
Soldering, Machine tools, 3D Printing, Extra Class Amateur Radio License (Callsign AG6GR)