Sunny He

sunnyhe.org
slhe@alumni.princeton.edu

Education

Princeton University, Princeton, NJ — June 2018

B.S.E in Electrical Engineering
Certificate in Applications of Computing (CS), Certificate in Robotics and Intelligent Systems
Coursework includes: Algorithms and Data Structures; Embedded Computing; Programming Systems; Computer Architecture; Electronic Circuits; Image Processing; Computer Vision
Cumulative GPA: 3.74/4.00

Experience

Apple, Cupertino, CA – *Wireless Software Engineer* — August 2018 - Present

Designed and implemented software features for Apple wireless products. Coordinated with cross-functional teams to integrate software across numerous hardware platforms. Investigated new algorithms and features for future products.

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

Cupertino High School Robotics, *Software Mentor* — Fall 2018 - Present
Princeton Rocketry Club, *Electrical Engineering Mentor* — Fall 2016 – Spring 2018
Princeton Autonomous Vehicle Engineering, *Electrical Systems Lead* — Fall 2014 – Spring 2017
Council on Science and Technology StudioLab, *Student Ambassador* — Fall 2016 – Spring 2018
Cupertino Amateur Radio Emergency Service, *Field Responder* — 2009 – Present

Projects

RF Fingerprinting – Identify WiFi stations based on RF characteristics — Fall 2017 - Spring 2018

Lunar Ranging – Performed radio moon ranging experiments on the Project Diana dish — Fall 2016

Developed 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

http://sunnyhe.org/projects-carvis.html

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

Skills

Python, C/C++, Java, JavaScript, Jenkins, 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