SAMUEL HOLLADAY

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EDUCATION

University of California, Berkeley *May 2018*
M.S. in Electrical Engineering & Computer Science

University of California, Berkeley *May 2017*
B.S. in Electrical Engineering & Computer Science

EXPERIENCE

UC Berkeley Salahuddin Lab 2015-present
Undergraduate devices researcher for Professor Sayeef Salahuddin *Berkeley, California*

In spintronics lab, worked on acoustically driven and spin-torque ferromagnetic resonance experiments, conducted experimental measurements, and designed comparative materials study of nickel and ferrite crystals.

Maxim Integrated 2017
Applications Engineering Intern *Colorado Springs, Colorado*

Designed and characterized circuits for multimedia serializers and deserializers in Automotive Unit of major chip manufacturer. Created power over coax boards, simulated components, and improved board power supply and regulation.

EE130: IC Devices 2016
Reader *Berkeley, California*

Student reader grading assignments for Integrated Circuit Devices class, under Professor Sayeef Salahuddin.

Lawrence Berkeley National Laboratory 2014-2015
Undergraduate researcher for Samveg Saxena *Berkeley, California*

Created server framework and website for MyGreenCar vechicle fuel economy app at http://mygreencar-01.lbl.gov. Working on hybrid vehicle-grid integration, using Matlab to create a simulation platform (V2G-Sim) to enable the optimal integration of plug-in electric vehicles with the electricity grid.

Undergraduate Research Apprenticeship Program Spring 2014
Undergraduate researcher under Professor Alice Agogino *Berkeley, California*

Worked on creating a Web application for a ride-sharing and shuttle transportation system for a community in need of public transit. Extensive web development using Javascript, JQuery, and Ajax programming.

Naval Research Laboratory 2012-2014
SEAP and USM Intern for Sergio deRada *Stennis Space Center, Mississippi*

Created a comprehensive, interactive ocean modeling site to dynamically create and display data from the Navy Coastal Ocean Model (NCOM) using Python scripts at http://www7330.nrlssc.navy.mil/GOMMS/. Built the websites back-end scripts, which stored and manipulated model data for use in plots and analyses. In 2014, developed an iPhone app as part of an adaptive climatology project.

COURSEWORK

Computer Science: Algorithms, Artificial Intelligence, Discrete Mathematics and Probability Theory, Machine Structures, Data Structures, Structure & Interpretation of Computer Programs

Electrical Engineering: Analog Integrated Circuits, Microelectronic Circuits and Devices, Microelectronic Fabrication, MEMS, Integrated Circuit Devices, Solid State Devices, Signals and Systems, Introduction to Microelectronic Circuits

Science: Solid State Physics, Quantum Mechanics, Physics: Mechanics and wave motion, Physics: Electricity and magnetism, General Chemistry, Properties of Dielectric and Magnetic Materials

Mathematics: Multivariable Calculus, Linear Algebra and Differential Equations, Calculus

TECHNICAL SKILLS

Programming	Python, Java, C, C++, Matlab, LabVIEW, Scheme, Objective-C
Web Development	Django, Javascript, PHP, JQuery, Ajax, Git, Google Maps API, Node.js, Yeoman
Languages	English (Native), Spanish (Proficient), Portuguese (Proficient)
Software	Cadence, ADS, DipTrace, SPICE, AutoCAD, Unix, iOS development, Server admin, LaTeX

ACTIVITIES

ASUC Office of the CTO 2016 - present

Chief Engineer on Project Sensus (2016)

Led project to create portable, low-cost wireless people counter to track occupancy of campus gyms and libraries, and upload data to web application for use by students.

Calsol: UC Berkeley Solar Vehicle Team 2013 - 2016

Data Team Lead, Webmaster (2014)

In 2014 appointed team Webmaster, in charge of managing the website, accounts, and web security, and Data team lead, in charge of processing and transmitting diagnostic and sensor data from the car during the competitive race.Worked as a freshman on the Electrical Team within the Power subteam, focusing on storing and distributing power from the cars solar cells safely and efficiently. Focused on Battery Management System (BMS) development and Hall-effect current sensing.

Cal Ultimate Frisbee Team 2014 - 2015

Member of Ultimate Frisbee team.

LeaderShape Institute retreat January 2016

Week-long program with 200 other UC Berkeley engineers to learn team-building, leadership, and consideration for social and ethical issues in engineering.

SOL Study Abroad: Granada, Spain Summer 2015

Participated in six-week study abroad program with SOL Education Abroad in Granada, Spain. Took classes in Spanish and Hispanic American Culture and Civilization, as well as Spanish language, with the University of Granada.

FIRST Robotics: Team 1912 2006-2014

Member of high school FIRST robotics team, helping with robot building, community outreach, public demos, administration, and leadership. Titles include captain of Chassis team, 2-time robot driver, and Secretary.

HONORS

2013	UC Berkeley Regents and Chancellors Scholar
2013	NASA College Scholarship Fund award recipient
2013	High school valedictorian