Andy Gu

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EDUCATION

University of Southern California, Los Angeles, CA — *Graduates May 2018*
Bachelor of Science in Computer Science and Computer Engineering
GPA: 4.00
Courses: Linear Algebra and Linear Differential Equations, Data Structures and Object Oriented Programming, Discrete Methods in Computer Science, Introduction to Embedded Systems, Writing 150
Complete by December 2015: Introduction to Photography, Introduction to Algorithms and the Theory of Computing, Principles of Software Development

Graduate – Top 10 Ranked Student (GPA: 3.99, 4.61 Weighted) — *May 2014*
Saint Francis High School, Mountain View, California
National AP Scholar – AP Calculus AB, AP Calculus BC, AP Statistics

SKILLS AND EXPERIENCE

Programming Languages: C, C++, Java, Python, SQL, LaTeX — Hardware Design: Arduino Uno
Passing Experience: HTML, CSS, Javascript, JQuery

Los Alamos National Lab, Cyber Futures Lab, Los Alamos, NM, Research Intern — *May 2015-August 2015*
- Manipulated DNS, Squid, and netflow logs to create a metric for determining the privacy risk of database queries.
- Wrote a SQL privacy "optimizer" for automating the suggestion of better, privacy-preserving database queries given user queries in data-sharing applications.
- Presented results to Department of Homeland Security, Colorado State University, and USC representatives; currently writing paper with mentor on discoveries.
- Working as a research intern under Dr. Boris Gelfand and the RetroFuture project

University of Southern California, Introduction to Programming Course, Course Producer — *August 2014-Present*
- Selected as a course producer based on academic and course performance in first semester courses. Held office hours and lab sections for introductory students and facilitated course grading.

Analysis of Network Traffic Lab, Information Sciences Institute, Marina Del Rey, CA, Research Intern — *September 2014-Present*
- Wrote Python scripts to automatically generate maps of Internet outages using the Matplotlib library given data from edge network probing
- Wrote interactive Javascript websites mapping outage geolocations over multiple 24-hour time periods and parsing probe results
- Read Perl code and wrote equivalent Python scripts to parse probe results of /24 blocks of the Internet
- Helped researchers perform Internet measurement and analysis to better facilitate outage detection
- Worked as a research intern under Dr. John Heidemann while keeping a log of weekly progress

University of Southern California, Introduction to Computing Course, Course Grader — *January 2015-May 2015*
- Selected as a course grader based on academic and course performance in first semester courses. Graded midterms, homework, and project essays while checking for plagiarism during the semester.

PROJECTS

Death Clock
- Created a Halloween-themed Android application at the 2014 TrojanHacks Hackathon – it took in behavioral data and displayed average life expectancy based on lifestyle choices chosen from a drop-down menu. Won 4th place out of 18 teams.
- Learned basic Android programming principles to personally create a screen that returned and processed the results of these data.

My(o) Cookbook
- Wrote a dynamic recipe using the Myo API to detect stirring and chopping gestures to progress through a digital cookbook for users.
- Independently learned the Javascript interface / myo.js library to track basic cooking gestures. Won best Myo hack at LA Hacks 2015.

HONORS/ACCOMPLISHMENTS

- Trojan Scholar Society and National Society of Collegiate Scholars, Member – 2014-2015
- IBM Watson Memorial Scholarship Recipient, Presidential Scholarship Recipient, USC Gregory Scholarship Recipient – 2014-2015
- W.V.T. Rusch Engineering Honors Program Member, Viterbi School of Engineering Deans List – 2014-2015