

Ian Chang

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Goal: Develop my career in electrical engineering and computer science as an intern at a high-tech company

Education	<p>UNIVERSITY OF CALIFORNIA, BERKELEY, 2018-2022.</p> <p>BS in Electrical Engineering and Computer Sciences (Emphasis in Computer Engineering) GPA: 3.67/4.0 Courses: Data Structures, Structure and Interpretation of Computer Programs (Programming Paradigms), Designing Information Devices & Systems I (Linear Circuits, Linear Algebra), Designing Information Devices & Systems II (Non-linear Circuits, Robotics & Controls, Interpolation)</p> <p>SANTA MONICA COLLEGE, 2015-2018.</p> <p>Entry Level Programmer Certificate (Dual Enrollment) GPA: 4.0/4.0 Courses: C Programming, Internet Programming, Visual Basic Programming, Intro to Computer Science</p>
Honors	<p>UC Berkeley Bowles Hall Residential College Dean's List Crawford Memorial Mathematics Scholarship USA Computing Olympiad Platinum USA Computing Olympiad Gold Perfect Scorer Santa Monica High School Salutatorian (Class of 700)</p>
Employment	<p>Bitcoin Presenter, Santa Monica Public Library. April 2018</p> <ul style="list-style-type: none">➤ Arranged and founded the "Introduction to Bitcoin" library program, teaching over 35 citizens on the technical workings of Bitcoin technology.➤ Sold-out library event, averaging 4 out of 5 star reviews.
Research	<p>Research Assistant (under Prof. Puneet Gupta), NanoCAD Lab, UCLA. September 2016-June 2018</p> <ul style="list-style-type: none">➤ Developed Verilog parser using Python to re-arrange FPGA I/O chip hierarchies using tree data structures and depth first-search algorithms. Replaced manual rearrangement of I/O blocks with instantaneous, automated block rearrangement to expedite FPGA code design process.➤ Architected Verilog block hierarchies and unit-tested results with Xilinx ISE Design Suite.➤ Implemented a Mac OS X port for an open-source memory benchmarking tool (X-Mem) using C++, POSIX, and Mach thread libraries. Increased users of X-Mem in utilized courses by 30% (previously only Windows & Linux supported)➤ Integrated Clang compiler support and SCons compatibility for X-Mem Mac OS X developers using Python, expanding compiler compatibility to Mac OS X systems.➤ Designed real-time data visualization website for X-Mem that uploads and parses X-Mem CSV results using MySQL, PHP, Plotly.js, and Bootstrap CSS. Created a system where users can share and compare their memory benchmarking results online, replacing the old-fashioned and inefficient method of physical file transfer and loading the CSV results in a spreadsheet program.
Teaching	<p>Teaching Assistant, Los Angeles Computing Circle, UCLA. July 2016-August 2016</p> <ul style="list-style-type: none">➤ Mentored and outreached to high school students in college-level material, including fast and efficient algorithms, graph theory, and mobile-development as part of a UCLA EE Department hosted program.
Volunteering	<p>Programming Volunteer, Santa Monica Public Library, Santa Monica, CA. Sept 2017 – October 2017</p> <ul style="list-style-type: none">➤ Collaboratively developed a video game using PyGame that was publicly featured and played by library visitors during International Failure Day.
Projects	<p>Coinlet — Bitcoin/Ethereum/Litecoin Price Tracker</p> <ul style="list-style-type: none">➤ Developed RESTful Android application to track cryptocurrencies prices in real-time using Android Studio, Retrofit Library, and Coinbase API. <p>Robotic Motor Car</p> <ul style="list-style-type: none">➤ Built a motorized car utilizing an MSP430 microcontroller, encoders, frequency-response filters, and open-loop model to drive multiple directions/angles. <p>Scheme Interpreter</p> <ul style="list-style-type: none">➤ Developed a Scheme interpreter that implemented Read-Evaluation-Print-Loop schematic and tail-call optimization using Python.
Languages	Java, Scheme (Functional Programming), Python, SQL, Verilog, C, Bash
Skills	Git, Vim, Tmux, IntelliJ IDE (Debugger), Unit Testing, Soldering, Circuit Design and Implementation