

HOWARD ANH HAO NGUYEN

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University of California, Berkeley, EECS

Expected Graduation Date: May 2015

SKILLS SUMMARY

- **Proficient with:** Python, Java, Arduino (Processing), Scheme, HTML5/CSS3, MATLAB
- **Familiar with:** C, C++, Scala, d3.js, node.js, Django, Flask, JavaScript/jQuery, basic Angular, MIPS assembly, angular.js, SQLite, basic Android development
- **Other software:** SolidWorks, Autodesk/CAD, LaTeX, MultiSim, Ultiboard, SPICE, Logisim
- **Relevant course work:** Data Structures and Algorithms, Discrete Mathematics and Probability Theory, Efficient Algorithms and Intractable Problems, Machine Structures, Artificial Intelligence, Computer Graphics, Database Systems

WORK AND TECHNICAL EXPERIENCE

- Berkeley CITRUS Lab**, Electrical Engineering Intern 5/2013 – Present
- Researched, designed, and created prototypes for hand-powered, small-scale electric power generators (i.e. – bicycle pump generator and piezoelectric shoes)
- CS61A**, Academic Intern 8/2013 – Present
- Teach students introductory computer science concepts such as recursion, iteration, OOP, inheritance, and abstraction
- RoboOps**, Member 8/2013 – Present
- Designing and testing a Mars rover robot that will be operated in Texas from Berkeley. Created the GUI and implemented the bulk of the color detection algorithms.
- Flowbit**, Hardware and Software Intern 7/2013 – 9/2013
- Designed, programmed, and tested Arduino to remotely monitor water usage
 - **Hardware:** designed, wired, soldered, and integrated Arduino with GPS shield, GPRS shield, RTC, and flow meter
 - **Software:** programmed Arduino to send SMS, receive GPS location, and process flow meter data; optimized code to use as little power as possible by maximizing sleep time and minimizing linear/expensive operations
- Bioengineering Medical Society**, Publicity Committee 2/2012 – 6/2013
- Organized and advertised events for General Meetings and newspaper
- San Francisco Paramedic Association**, Emergency Medical Technician 7/2012- 2/2013
- Provided emergency medical care and transported 911 callers

PROJECTS

- **Yelp Wannabe:** scrapes Yelp based on query and decides on a restaurant based on user preferences, read Yelp reviews to try and determine satisfaction
- **Sphinx:** a data analysis and visualizing tool built on Flask, d3, and Python for 2014 LA Hacks. Given any two queries, it finds the corresponding data sets on the web and performs analysis (regression, p-test, Pearson's coefficient, etc)
- **CaptchaMeNot:** a captcha reader built in MATLAB in 24 hours for Hack Jam. Performed OCR using histogram projections
- **TypingGame:** a 2 player typing game built on Node, Socket, and Javascript for BearHack
- **ViewFinder:** a geography-oriented Instagram viewer built for Facebook Hackathon