

## HOWARD ANH HAO NGUYEN

619-817-1456

[howardanguyen@berkeley.edu](mailto:howardanguyen@berkeley.edu)

howardanguyen.com

University of California, Berkeley, EECS

Expected Graduation Date: May 2015

### SKILLS SUMMARY

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- **Proficient with:** Python, Java, Arduino (Processing), Scheme, HTML5/CSS3, MATLAB
- **Familiar with:** C, C++, Scala, d3.js, node.js, Django, Flask, JavaScript/jQuery, MIPS assembly, angular.js, SQLite, basic Android development, goLang
- **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

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- 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

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#### Hardware / Software

- **Yelp Wannabe:** scrapes Yelp based on query and decides on a restaurant based on user preferences, read Yelp reviews to try and determine satisfaction
- **CaptchaMeNot:** a captcha reader built in MATLAB in 24 hours for Hack Jam
- **ViewFinder:** a geography-oriented Instagram viewer built for Facebook Hackathon
- **TypingGame:** a 2 player typing game built on Node, Socket, and Javascript for BearHack
- **Mini Tron:** a pure basic JavaScript game played against an basic AI
- **Lame Dictionary:** scraped dictionary websites for basic definition, stored into word doc