

## HOWARD ANH HAO NGUYEN

619-817-1456

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

University of California, Berkeley, EECS

Expected Graduation Date: May 2015

### SKILLS SUMMARY

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- **Proficient with:** Python, Java, Arduino (Processing), Scheme, HTML/CSS, MATLAB
- **Familiar with:** Django, Flask, Javascript/jQuery, currently learning C
- **Other software:** SolidWorks, Autodesk, AutoCAD, Adobe CS, LaTeX, NI MultiSim, NI Ultiboard, SPICE
- **Relevant course work:** Data Structures and Algorithms, Discrete Mathematics and Probability Theory, Efficient Algorithms and Intractable Problems, Machine Structures

### 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
- Pioneers in Engineering**, Member 2/2013 – Present
- Soldered and built robotics kit for high school robotics competitions
- 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- 8/2012
- Provided emergency medical care and transported 911 callers

### PROJECTS

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#### Hardware / Software

- **Yelp Wannabe:** scraps Yelp based on query and decides on a restaurant based on user preferences, read Yelp reviews to try and determine satisfaction
- **RC Laptop:** controlled laptop (shutdown, play music, open browser, etc) using SMS
- **Lame Dictionary:** scraped dictionary websites for basic definition, stored into word doc
- **Lame Mail:** small script that checks mail for any POP3 mail server through CMD prompt
- **ECG and BPM Player:** built a basic ECG to measure heart rate, currently implementing BPM player which chooses music based on heart rate

#### Other

- **Wood working:** built shoe rack, bed, desk, and tool shed

**Other non-relevant activities:** kung fu, repairing bikes and appliances, running, eating