

# Michael James Murphy

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## Education

- August 2017 **Carnegie Mellon University, Pittsburgh, PA**, QPA: 3.2.  
Bachelors of Science in Computer Science, Minor in Music Technology
- Selected Coursework: Compiler Design, Machine Learning, Foundations of Programming Languages, Program Analysis, Probability and Computing, Production Audio, Electronic and Computer Music, Multitrack Recording, Editing and Mastering, Solfege, Harmony, Eurythmics

## Skills

- Languages: Python, JavaScript, HTML, OCaml, SML, C, Java, bash,  $\LaTeX$
- Libraries: Vue, Django, Bootstrap, Jane Street Core, ROS, Qt
- Audio: Pro Tools, Finale, Reason, Logic

## Work Experience

- August 2017 **Embedded Software Consultant Engineer**, *Green Hills Software*, Santa Barbara, CA.
- Present
  - Helping Green Hills customers with the GHS compiler, OS, IDE, and other products
- Summer 2015 **Software Engineering Intern**, *WhatsApp*, Mountain View, CA.
- 2015
  - Worked on the Windows Phone team implementing networking protocols and improving reliability

## Teaching Experience

- Summer 2014 - **Teaching Assistant**, *Various Courses*.
- 2014 -
  - 15-110 Principles of Computing: Summer 2014
- Summer 2016
  - 15-122 Principles of Imperative Computation: Fall 2014, Spring 2015, Summer 2016
  - 15-131 Great Practicals Ideas in Computer Science: Fall 2014, Fall 2015
  - 15-150 Principles of Functional Programming: Summer 2016
- Spring 2014 - **Peer Tutor**, *CMU Academic Development*, Pittsburgh, PA.
- Spring 2017
  - Assisted with homework and explained material from various courses on a weekly basis

## Research Projects (CORAL Research Group, Professor Manuela Veloso)

- Summer 2013 **Robot UI**.
- 2013
  - Designed and coded a new UI for the CoBot mobile service robots using ROS
  - Implemented in a linux touch interface using Python and Qt
- Summer 2014 **Robot Log Explorer Site**.
- 2014
  - Implemented a script to parse log data from CoBot mobile service robots into a database
  - Designed a website using this database to search logs across many categories including coordinates visited, and to display and graph the results

## Projects

- Fall 2014 **Adaptive Interval Tutor**, *ait.michaeljamesmurphy.com*.
- Worked with three people to create a web app to train users' ear for musical intervals
  - Designed a probabilistic intelligent tutoring system to add adaptive difficulty

## Activities

- Fall 2015 - **Sergeant at Arms and Second Vice President**, *CMU KGB Social Club*.
- Spring 2017
  - Ran games and/or events (sometimes attended by 100+ people) for the org at least once a week
  - Assisted with building a booth, maintaining website and server infrastructure, and ordering shirts