

Michael James Murphy

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Education

May 2017 **Carnegie Mellon University, Pittsburgh, PA**, QPA: 3.53.

Bachelors of Science in Computer Science, Minor in Music Technology

Selected Coursework: Compiler Design, Machine Learning, Foundations of Programming Languages, Introduction to Computer Music, Probability and Computing, Great Theoretical Ideas in Computer Science, Parallel and Sequential Data Structures and Algorithms

Skills

Languages: Python, OCaml, SML, Java, C, C#, bash, JavaScript, HTML, \LaTeX

Libraries: ROS, Django, Bootstrap, Qt

Work Experience

Summer 2015 **Software Engineering Intern**, *WhatsApp*, Mountain View, CA.

- Worked on the Windows Phone team implementing networking protocols and improving reliability

Teaching Experience

Fall 2014 - **Teaching Assistant**, 15-122 *Principles of Imperative Computation*.

- Independently taught weekly recitations on fundamental data structures and algorithms

Fall 2014, **Teaching Assistant**, 15-131 *Great Practical Ideas in Computer Science*.

- Periodically lectured about 90 freshmen on bash, text editors, and other tools for computer scientists

Summer 2014 **Teaching Assistant**, 15-110 *Principles of Computing*.

- Prepared and gave a 5-10 minute daily lecture on introductory computer science topics
- Taught daily lab section of about 30 students, and held daily office hours

Spring 2014 **Peer Tutor**, *CMU Academic Development*, Pittsburgh, PA.

- Present ◦ 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**.

- Designed and coded a new UI for the CoBot mobile service robots using ROS
- Implemented in a linux touch interface using Python and Qt
- Gained experience working with large foreign code bases and using third party libraries

Summer 2014 **Robot Log Explorer Site**, *data.cobotrobots.com*.

- 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
- Gained experience learning new languages and tools and creating custom algorithms

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