

Mycal Tucker

✉ mycal.tucker@gmail.com
🐙 github.com/mycal-tucker
🌐 linkedin.com/in/mycaltucker

EDUCATION

Mass. Institute of Technology

BS June 2015

Double Major:

Computer Science

Aeronautical and Astronautical Eng.

Cum. GPA: 4.9/5.0

Mass. Institute of Technology

MEng. Sep 2016

CS in AI

Cum. GPA: 5.0/5.0

SKILLS

Languages:

Java, Scala, Python

Tools:

Git, Vim

Independently Learned:

C++, R, Matlab/Simulink

COURSEWORK

Design and Analysis of Algorithms

Underactuated Robotics

Inference and Information

Algorithms for Inference

AWARDS

Winner of Morsa prize for best application of comp. sci. to aero/astro engineering

Member of Tau Beta Pi

Member of Eta Kappa Nu

LEADERSHIP ROLES

Captain of MIT Crew Team

Coach of MIT Crew novices

Team lead in satellite mission course

WORK AND RESEARCH EXPERIENCE

Amazon Robotics – Software Developer

Aug 2016 – Present

Software Developer on Advanced Robotics team

North Reading, MA

- Designed and implemented order allocation algorithms for new Fulfillment Center designs
- Monitored and optimized computational performance in existing systems

Massachusetts Institute of Technology

Aug 2015 – Aug 2016

Grad. Student Researcher in Robust Robotics Group

Cambridge, MA

- Extended natural-language grounding model to autonomously learn new phrases and objects
- Evaluated end-to-end framework and demonstrated statistically significant improvements
- Published Master's Thesis and submitted conference paper for ICRA 2017

Massachusetts Institute of Technology

Aug 2015 – Dec 2015

Teaching Assistant for Intro. to AI

Cambridge, MA

- Conducted weekly recitations and office hours for 40 students personally; wrote and graded midterms and final.
- Ended semester as the highest-rated teaching assistant in CS department with > 10 reviews.

INDEPENDENT PROJECTS

EdX Courses Individually took online courses after work

- Intro. to R – basics of statistics scripting language
- Intro. to C++ – formal introduction to C++ fundamentals

Secret Santa Permutation Analysis

Statistically modeled and analytically proved expected number of loops within a permutation of n players (framed in the context of Secret Santa).

Learning Error-Correction Bit Importance

NOTE: Ongoing research (not complete)

Designed and implemented genetic algorithm to learn optimal distribution of error-correction bits; later verified analytically.