

# Ben Machlin

Computer Science Engineer

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## Education

**2018–2019 M.S. Computer Science (Expected)**, *Tufts University*, Medford, MA.

**2014–2018 B.S. Computer Science**, *Tufts University*, Medford, MA.  
Dean's List, Music Engineering Minor, Study Abroad: AIT Budapest

## Experience

2017 - now **Tufts Computer Science Department**, *Teaching Assistant*, Medford, MA.

- Lead students in weekly recitations, work through examples, field questions and explain complex concepts in understandable terms.
- Grade assignments, hold office hours, discuss teaching methods with the professor and other TAs, and work one on one with students.

Summer 2018 **Alarm.com**, *Software Engineering Intern*, Denver, CO.

- Created a graphing visualization tool for internal data structures to aid in comprehension and management of complex modules. Integrated into an Ember application.
- Constructed a full-stack OAuth2 authentication flow wizard that provided Alarm.com access to customer 3rd party data.

Jan-Jun 2018 **Persimmon Project (Crypto Investment Fund)**, *Technical Consultant*, Remote.

- Designed, created and maintained a cross platform mobile application (using Ionic) for investors to track their portfolio, learn about investments, and receive updates.

Summer 2017 **Human-Robot Interaction Lab**, *Researcher*, Tufts University.

- Worked with a small team in creating and carrying out research in the field of creative thinking in robot planning.
- Developed interface between AI Planning modules and larger robot action codebase.
- Implemented AI planning algorithms and robot action components.

## Skills

Languages Python, JavaScript, Java, HTML, CSS, C++, C, Processing, SQL

Software Photoshop, Illustrator, XD, git, Android Studio, Windows, Linux, macOS, MS Office

Other Spotify API, nltk, Ionic, Ember, Chartist, networkx, sklearn, NodeJS, Heroku

## Projects

- Connect four (with a twist!) web game
- Spotify album visualization web tool
- Basic database with buffer pool and blocking from scratch
- Network analysis and presentation on Spotify related artists
- Android music app for collaborative queuing and voting - full stack
- Electronic 3-person movement controlled tower instrument
- Aluminum pyramid stringed instrument
- Generative art programs (Processing)