

## Education

- **Worcester Polytechnic Institute** Worcester, MA  
*M.Sc. Computer Science* Anticipated May 2021
  - Coursework: Machine Learning, Deep Learning, Computer Vision, and Algorithm Design & Analysis, Theory of Computing, and Computer Networks
- **Worcester Polytechnic Institute** Worcester, MA  
*B.Sc. Computer Science Cum Laude* May 2020
  - Coursework: Artificial Intelligence, Cryptography, Computer Architecture, Software Engineering, Operating Systems, Databases, etc.

## Work Experience

- **Worcester Polytechnic Institute** Worcester, MA  
*Graduate Research Assistant* May 2020 - July 2020
- **Proofpoint** San Francisco, CA  
*Software Engineering Intern* June 2019 - August 2019
  - Developed internal CLI tool for deployment of a Docker-based testing environment to improve and abstract all individual testing cases
  - Automated product backend upgrade testing jobs in Jenkins
- **Cloudflare** San Francisco, CA  
*Operations Intern* June 2018 - August 2018
  - Designed system for identifying, scoring, and generating optimal sales leads using internal contact data supplemented with additional information scraped from networking platforms
  - Developed scripts used to periodically evaluate client's site status information with 100x efficiency

## Projects

- **Automated Corrosion Assessment and Data Collection** Worcester, MA  
*U.S. Army Research Lab Collaboration* January 2020 - May 2020
  - Developed iOS application for efficient on-site data collection, editing, and viewing
  - Deployed RESTful API with support for multi-dimensional data submissions, user account registration and authentication, visualization tools, and download endpoints via web interface
  - Prototyped CNN and SVM classification models for remote corrosion rating as per ASTM D1654
- **Augmented Reality for Improving Human-Swarm Interaction** Worcester, MA  
*Capstone Project* August 2019 - March 2020
  - Developed ARGoS-based swarm control system on the Magic Leap headset with mixed-modality control options, combining gesture and voice recognition
  - Combined control system with visualization layer to enable easy swarm-wide debugging
  - Published findings, including an outlined user study plan for evaluating methods against existing tablet-based system
- **Forgery Recognition Through Handwriting Style Emulation** Worcester, MA  
*Team Project* August 2019 - December 2019
  - Analysed state-of-the-art machine learning algorithms for handwriting style extraction and synthesis
  - Designed reinforced GAN for synthesis and Siamese network for forgery generation and evaluation

- **Chess Piece Image Classification** Worcester, MA  
*Team Project* *August 2019 - December 2019*
  - Used data generation techniques to build robust dataset coverage of objects
  - Implemented CNN using Keras and evaluated multiple computer vision preprocessing techniques
  - Achieved 94% classification accuracy while maintaining invariance to rotation, scale, translation, etc.
- **Brigham & Women's Hospital Kiosk** Worcester, MA  
*Assistant Lead Software Engineer* *January 2018 - May 2018*
  - Designed, developed, and tested pathfinding kiosk software as part of an Agile team
  - Conducted market research through interviews and surveys for usage patterns and requirements
  - Created process maps and diagrams based on business architecture solutions using case diagrams, activity diagrams, and UML flowcharts
  - Authored well-engineered solutions using test-driven methodologies

## Core Competencies

**Languages:** Python, Java, Go, C, C++, C#, Bash, MATLAB, R, Racket, SQL, x86, F/XML, HTML, L<sup>A</sup>T<sub>E</sub>X

**Software:** Linux, Git, gdb, Tensorflow, PyTorch, SciKit-Learn, Docker, Kubernetes, VirtualBox, Unity, Jenkins, Gradle, TravisCI, Valgrind, Wireshark, Jira, Trello, Microsoft Office Suite, G Suite