

Objective

To obtain a position which will allow me to apply my relevant experience and technical skills in a challenging but also stimulating environment which encourages lifelong learning.

Education

- **Worcester Polytechnic Institute** Worcester, MA
M.Sc. Computer Science Anticipated May 2021
 - Coursework: Machine Learning, Deep Learning, Computer Vision, 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, Networks, Databases, Algorithms, 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 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^AT_EX

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