

# Andrew Festa

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## Education

### Rochester Institute of Technology

MASTERS OF SCIENCE IN COMPUTER SCIENCE, GPA: 3.6

- **Thesis:** Data Representation for Motor Imagery Classification

*Rochester, New York*

*August 2018 - May 2020*

### Rochester Institute of Technology

BACHELOR OF SCIENCE IN COMPUTER SCIENCE AND ELECTRICAL ENGINEERING, GPA: 3.62

- **Philosophy Immersion**

*Rochester, New York*

*August 2015 - May 2020*

## Technical Skills

**Domains** Artificial Intelligence, Signal Processing, Networking, Cybersecurity, Embedded Systems  
**Languages** Python, C#, Java, SQL  
**Frameworks** OpenCV, PyTorch, Tensorflow, Jupyter, Django, Flask, AWS

## Experience

### IOMAXIS, LLC

ARTIFICIAL INTELLIGENCE RESEARCH ENGINEER

- Implemented a multi-agent reinforcement learner to automate search and rescue efforts by autonomous drones
- Organized creation of a project to reduce overhead with identifying and pursuing new project proposals
- Designed a GUI for detection and analysis of zero-day attacks and anomalous system behavior

*Springfield, VA*

*September 2019 - Present*

### IOMAXIS, LLC

ARTIFICIAL INTELLIGENCE RESEARCHER CO-OP

- Designed and implemented a dynamic and modular approach for data acquisition of a distributed network
- Fine-tuned AI-based approaches for reacting to detected vulnerabilities on a network or a specific host
- Worked as part of a research team to build an approach for landmark recognition from images on a mobile phone

*Springfield, VA*

*May 2018 - September 2019*

### UTC Aerospace Systems

SOFTWARE ENGINEER CO-OP

- Coordinated with hardware and software engineers to develop test harness for verifying and validating code functionality on target system
- Leveraged Simulink on top of Matlab to model and simulate code using a model-based design framework
- Automated generating metric reports detailing code completion to present to customers

*Raleigh, NC*

*Jan. 2017 - Aug. 2017*

### Rochester Institute of Technology

GRADER, MECHANICS OF PROGRAMMING (C)

- Reviewed and tested submitted code for success of implementation and quality of documentation
- Worked alongside students in aiding them on how to better develop readable and maintainable code
- Developed test cases and scripts to automate the process of running code and providing meaningful feedback to students

*Rochester, NY*

*Aug. 2016 - Dec. 2016*

### Sophos

SECURITY ENGINEER CO-OP

- Automated the discovery of external assets, including available employee information, domains, and IP ranges
- Conducted vulnerability assessment in order to discover potential security threats and aided in remediation of validated findings
- Developed scripts and programs in order to aid in achieving a baseline training and understanding of security and secure coding practices

*Burlington, MA*

*Jun. 2016 - Aug. 2016*

## Personal Projects

### Brain-Controlled Interface Headset

- Designed iterative implementations for a headset to gather reliable electroencephalogram signals from the scalp
- Incorporates notch filters and cable shielding to reduce signal noise
- Allows for impedance checking to measure reliability of gathered signal

### Stock Market Predictor

- Incorporates several AI-based agents for predicting stock market signals: RL agent, R-CNN, and Bayesian Network
- Performs real-time data acquisition for training and evaluation of the underlying algorithms
- Evaluates and compares the performance of each agent based on two hour increments of the gathered data

## Technical Writing

- *Camera Calibration and Stereo Imaging*
- *Drawing Correlations Between Video and EEG*
- *Review of Approaches for Image Segmentation*