Jeff Martin

100 Institute Road, Worcester MA, 01609

1 (207) 281-3406 • jamartin@wpi.edu • www.linkedin.com/in/jeff-a-martin/
www.github.com/Jeff-A-Martin

Undergraduate student of Computer Science seeking admission to a graduate program in Cognitive Artificial Intelligence or Machine Learning for the fall of 2018.

Education

Worcester Polytechnic Institute **Worcester, MA**
Bachelor of Science in Computer Science, Class of 2019, GPA: 3.98/4.00 *2015–Present*
Minor in Electrical and Computer Engineering

- **Relevant Coursework**: Algorithms, AI, SWE, Machine Learning*, Data Mining*, Secure SWE*, OOD, Database Systems, Numerical Methods of Analysis*.
- **Programming Languages**: Java, C, Scala, Python, SQL, HTML, CSS
- **Software and Systems**: Git, LaTeX, Linux

Work Experience

MIT Lincoln Laboratory **Lexington, MA**
Cyber Analytics and Decision Systems, Research Intern *May 2017–August 2017*

- Developed a taxonomy for cyber security data visualization tools by conducting an extensive literature review.
- Implemented analysis features in an existing cyber security data visualization tool using Scala.
- Designed and implemented infrastructure to support the streaming of large time-stamped datasets using Java.

Analog Devices Incorporated **Wilmington, MA**
Software Engineer Intern *July 2016–August 2016*

- Implemented Bluetooth communication infrastructure to support an internet of things project.
- Designed a custom Bluetooth Low Energy protocol to maximize the rate of data transfer.
- Implemented *server* infrastructure to transmit data from an embedded device using C.
- Implemented *client* infrastructure to receive transmitted data for Android and Linux systems using Java and Python.

Project Experience

Cyber Security Data Analysis Framework for Advanced Persistent Threat Detection **WPI**
Major Qualifying Project (Senior Capstone) *August 2017–October 2017*

- Collaborated with two students to develop a data analysis tool for the detection of advanced persistent cyber security threats.
- Implemented infrastructure with Java to support the insertion, partitioning, classification, and aggregation of large cyber security datasets; designed the framework to support an ensemble of the classifiers and visualization the dataset.
- Implemented a random forest and neural network to detect anomalous events in authentication records using Python and Java.

Rubik's Cube Solver **WPI**
Artificial Intelligence (CS4341) *August 2016–October 2016*

- Designed a novel Rubik's Cube solver that employed the IDA* search algorithm and sub-goal decomposition.
- Implemented the solver with the Manhattan Distance heuristic and multiple decompositions using Java.
- Performed a experiment to measure the performance of each decomposition.
- Refined the solver to be 33% more move-efficient and 93% more time-efficient than an average human solver.

Leadership Experience

Institute of Electrical and Electronics Engineers **WPI**
Vice President (Current),Webmaster (Current), President, Treasurer, Secretary *2015–Present*

Computer Science Department **WPI**
Senior Assistant (Tutor) *August 2016–Present*

Residential Services **WPI**
Residential Advisor *August 2016–May 2017*

**To be completed by May of 2018.*