

Jeff Martin

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Student of Computer Science seeking a software engineering internship for the summer of 2018.

Education

Worcester Polytechnic Institute

Master of Science in Computer Science, Class of 2019, GPA: 4.00/4.00

Worcester, MA

2017–Present

Worcester Polytechnic Institute

Bachelor of Science in Computer Science, Class of 2019, GPA: 3.98/4.00

Worcester, MA

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

Cyber Analytics and Decision Systems, Research Intern

Lexington, MA

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

Software Engineer Intern

Wilmington, MA

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.*