

MATTHEW F. HOFFMAN

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EDUCATION

Northeastern University, Boston MA Expected Graduation: May 2021
Master of Science in Electrical and Computer Engineering Cumulative GPA: 3.52/4.00
Bachelor of Science in Computer Engineering and Computer Science In-Major GPA: 3.73/4.00
Masters' Concentration: Computer Systems and Software
Honors: BS/MS Program, Dean's List (Spring 2017 – Present), Honors Program
Affiliations: American Institute of Aeronautics and Astronautics, Beta Gamma Epsilon Alpha Chapter – Executive Board (Treasurer, responsible for managing \$100k+ annual estate budget), Habitat for Humanity

EXPERIENCE

Dell EMC, Hopkinton MA June 2020 – July 2020
ISG Graduate Intern
- Developed a Linux automation accelerator and verified storage array configurations using **Ansible**
- Resolved testing issues between **RHEL** and **XtremIO** architectures

Draper Laboratory, Cambridge MA January 2020 – May 2020
Machine Intelligence Co-op
- Developed analytical software for an ocean data framework of autonomous buoys
- Implemented cloud-deployable package using **Apache Kafka** and **Docker** containers
- Designed relational database and API to interface with **Kepler GL**
- Used **Jupyter Notebook** to create data products from geospatial information

Northeastern University, Boston MA Fall 2017, Fall 2019
Teaching Assistant, CS 1800 – Discrete Structures
Course Assistant, CS 2510 – Accelerated Fundamentals of Computer Science II Spring 2019
- Graded and provided feedback on daily **Java** assignments
- Tutored students participating in an accelerated course and in topics of finite mathematics and probability
- Guided students during weekly lab sessions

Waters Corporation, Milford MA July 2018 – December 2018
Software Engineering Co-op
- Implemented environment for automated testing of **C++** firmware on HPLC instruments using **Pytest**
- Participated in daily scrums in a system of **Agile** software development

PROJECTS

Database2Vector Recommendation Engine Spring 2020
- Created a **Python** application that generates Word2Vec models based on user-provided data sets / contexts, and provides recommendations of similar target-fields
High Performance Computation Boston Fall 2019
- Designed a low-cost computer cluster to compete in an HPC price/performance competition
Dimensionality Reduction and Supervised Learning Spring 2019
- Performed cost-benefit analysis of PCA as a preprocessing technique for a neural network

PUBLICATIONS

Renewable Energy Generation from Footsteps using Piezoelectronics
Bala Maheswaran, Ryan Dent, **Matthew Hoffman**, Molly Sharpe, Zachary Stern, Daniel Trapp
2017 ASEE Northeast Section Conference

SKILLS and INTERESTS

Programming Python, C(++), Java, ACL2, (P)SQL, MATLAB, Verilog
Software Git, Linux/Unix, Flask, Apache Spark, Apache Kafka, Docker, PSpice, Simulink, SolidWorks
Electronics Digital Multimeters, Oscilloscopes, Raspberry Pi, Signal Generators, Pinsetters