

# MATTHEW F. HOFFMAN

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## EXPERIENCE

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### Digital Science | Cambridge MA

Python Developer

January 2025 – Present

- Develop and maintain extract, transform, load (ETL) pipelines in Python for Dimensions, a research platform linking grants, publications, clinical trials, and patents
- Serve as system administrator with active Public Trust clearance for the National Institutes of Health (NIH) and National Heart, Lung, and Blood Institute (NHLBI)
- Monitor and remediate software vulnerabilities using Trivy for FedRAMP compliant production environments
- Automate Docker image builds and Python package publishing to Cloudsmith using GitHub Actions
- Design, deploy, and maintain private Dimensions instances using Red Hat OpenShift and Rancher

### Dell Technologies | Hopkinton MA

Software Engineer II, Infrastructure

February 2023 – June 2024

- Developed zero-downtime upgrade services for cloud data storage platforms with Go, Kubernetes, and Docker
- Developed Linux driver compatibility features in C for modular hardware components of platforms (SSDs, HDDs)
- Managed CI/CD pipelines of C, C++, Go, and Python codebases with AWS, Jenkins, and Git
- Performed Agile development with JIRA and Confluence tools as a trained scrum leader and product owner

Software Engineer II, Quality Assurance

June 2021 – February 2023

- Designed automation scripts in Python to simulate hardware issues and validate recovery procedures
- Conducted routine physical tests and part replacements for quality assurance of NVMe storage platforms
- Used MATLAB and Jupyter notebook for manual testing and validation of electrical components

Storage Graduate Intern

June 2020 – September 2020

- Developed drivers in C for USB devices
- Verified device configurations using Ansible

### Draper Laboratory | Cambridge MA

Machine Intelligence Co-op

January 2020 – June 2020

- Developed SQL database for Apache Kafka data feeds from flotillas of autonomous ocean buoys
- Used MATLAB, Jupyter notebook, and Kepler.gl to create data products from geospatial and environmental data
- Implemented cloud-deployable containers using Docker

### Northeastern University | Boston MA

Teaching Assistant, CS 1800 – Discrete Structures

Fall 2017, Fall 2019

- Led weekly recitations and assisted students in completing problem sets
- Graded weekly quizzes and written homework assignments for various professors
- Tutored students in various topics of finite mathematics and probability

Course Assistant, CS 2510 – Accelerated Fundamentals of Computer Science II

Spring 2019

- Graded and provided feedback on daily Java assignments
- Instructed students in object-oriented design patterns
- Guided students during weekly lab sessions
- Tutored students participating in an accelerated course of study

### Waters Corporation | Milford MA

Software Engineering Co-op

July 2018 – December 2018

- Implemented environment for automated testing of C++ firmware on HPLC instruments using pytest (Python)
- Created proprietary plugins to modify framework behavior
- Developed networking features on instruments for remote access using JSON to replace protocol buffers
- Participated in daily scrums in a system of Agile software development

## EDUCATION

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### Boston University | Boston MA

January 2023 – April 2023

Paralegal Studies Certificate

**Courses:** Business Law, Legal Research, Legal Technologies, Legal Writing and Reasoning, Litigation, Real Estate Law, Probate and Family Law

### Northeastern University | Boston MA

September 2016 – May 2022

Master of Science in Electrical and Computer Engineering

GPA: 3.53/4.00

Bachelor of Science in Computer Engineering and Computer Science

**Masters' Concentration:** Computer Systems and Software

**Honors:** BS/MS Program, Dean's List, Honors Program

**Affiliations:** American Institute of Aeronautics and Astronautics, Beta Gamma Epsilon Alpha Chapter – Executive Board, Habitat for Humanity, Resident Student Association Hall Council