

Education

- 2018 – 2022 **BSc in Computer Science and Mathematics**, *Northeastern University*, Boston, MA
- Honors: **GPA 4.0** | Dean's Scholarship | Dean's List
 - Relevant Courses: Privacy in Statistics and Machine Learning (PhD level) | Object Oriented Design | Machine Learning | Algorithms | Adv. Linear Algebra | AI | Large-Scale Data Storage
 - Member of Husky Ambassadors, gave 13 tours a semester to prospective students.
 - Member of Aerospace NU (AIAA) in NUAU group, and organized programming for students in the greater Boston area as STEM outreach coordinator.
- July 2019 – **Study Abroad**, *Northeastern University*, Argentina & Uruguay
- Aug 2019
- Studied Spanish Language & Culture in Argentina & Uruguay.
 - Skills: Fluent in Spanish.

Skills

- Languages Python (NumPy, Matplotlib, Seaborn, SciKitLearn) | SQL | TypeScript | React | Java | LaTeX | ExtJS | Racket
- Software GitLab | Sagemaker | S3 | Dremio | AWS Lambda | Jupyter Notebook | Jenkins | Ansible | Ubuntu | Redis | EC2 | Nginx | WebLogic

Experience

- April 2021 – **Course Designer & Instructor**, *O'Reilly Media, Inc.*, Remote
- Present
- Developed and taught courses: Introduction to Linear Algebra Next Steps, Introduction to Linear Regression, & Introduction to Calculus as part of Essential Math for Machine Learning Series
 - Average overall rating of 9/10 after teaching over 400 students
- July 2021 – **Software Development & Data Science Co-Op**, *WHOOOP*, Boston, MA
- Dec 2021
- Set up system to de-identify PII data collected through WHOOOP Labs
 - Worked closely with WHOOOP Labs to build an app to collect, process and facilitate access to data for analysis
 - Deployed a lambda function for integration testing APIs
 - Designed a React web application with typescript using uplot plotting library
 - Developed core frontend features, API and database tables for managing remote data collection allowing for thousands more studies to be collected per day
 - Created Flask-based REST API endpoints for storing and manipulating study configurations in S3
 - Pulled data from whoop strap, auxiliary inputs for new data collections, external ground truth sources and polar chest strap, aligned these data together in one de-identified datatable
 - Created a web application with a validator tool to identify outliers and compare sensors to ground truth sources
 - Helped create and maintain web dashboard to visualize data from 20 different hardware sensors with different sampling rates and number of records
- July 2020 – **Software Development Co-Op**, *PowerAdvocate*, Boston, MA
- Jan 2021
- Developed full-stack features such as building search functionality, allowing dynamic re-ordering of tabular data, and creating permissions which toggle the visibility of UI components.
 - Worked closely with Product Owner to prioritize customer requests and bug reports.
 - Rewrote an old ExtJS 3 dashboard in React, added new filtering and bulk exporting functionalities, built a backend for those features in Java and SQL, and maintained high test coverage.
 - Monitored CI/CD pipelines for multi-product web app and resolved technical debt related to failing Selenium tests on Jenkins.
 - Led a working group to redesign the technical interview for future co-ops.
 - Researched and created spec for new diversity feature in UI with relevant stakeholders.
 - Refactored legacy Flash code to maintain functionality when Flash is deprecated.
 - Mentored and onboarded new co-op onto the team, explaining our tech stack and infrastructure.

- Mar 2021 – **Research Assistant**, *Northeastern University*, Boston, MA
- June 2021
 - Developed attacks to demonstrate privacy vulnerabilities in machine learning models.
 - Using newly developed algorithm to privately solve linear regression.
- Sep 2019 – **Teaching Assistant**, *Northeastern University*, Boston, MA
- June 2020
 - Highly rated Teaching Assistant for Northeastern's Fundamentals of Computer Science I course.
 - Held office hours every week to meet students for one-on-one support in course material.
 - Assisted course faculty running weekly lab of 45 students by addressing student questions.

Projects

- Jan 2020 – **Ribbit**, *Aerospace NU (AIAA)*, Boston, MA
- Present
 - Designing a front-end GUI for ground control of NUAV's autonomous systems.
 - Building new interface for missing operators using React, automating key steps in mission setup.
 - Developing new open-source tool for exporting data from ROS2.
- Sep 2019 – **Wind Energy Prediction**, *Northeastern University*, Boston, MA
- Dec 2019
 - Built a machine learning model to predict power generation of a wind turbine based on environmental factors and time of day, potentially usable for power grid management.
 - Self-taught usage of Git, Pandas, NumPy, Matplotlib, and SciKitLearn.

Interests

Rock Climbing | Backpacking | Fitness | Cooking | Data Privacy | Teaching