HARRIS BUBALO

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GitHub: HarrisonBubbles ◇ **Website:** bubalo.dev

EDUCATION

Northeastern University, Boston MA   *September 2024 – Present*
College of Science
Master of Science in Applied Mathematics with a Concentration in Data Science   *Expected May 2026*

Northeastern University, Boston MA   *September 2020 – May 2024*
Khoury College of Computer Sciences
Bachelor of Science in Computer Science and Mathematics   *May 2024*
Honors: Dean's List **GPA:** 3.97/4.0

TECHNICAL SKILLS

Languages: Python | JavaScript/TypeScript | Ruby | Java | C/C++ | MATLAB | SQL | Elixir | Dart
Software: Git | AWS | Scikit-Learn | Pytorch | TensorFlow | Docker/Kubernetes | Terraform | Google Cloud Platform

EXPERIENCE

Xometry | Boston, MA   *June 2025 – September 2025*
Machine Learning Engineer Intern
- Designed and implemented an automated metrics capture pipeline for ML platform components, streaming thousands of SageMaker and MLflow records daily to downstream tools
- Built event-driven architectures with EventBridge, CloudWatch, CloudTrail, Firehose, and Lambda for near real-time delivery of metrics to S3
- Improved observability and incident resolution by integrating metrics with Coralogix alerts and Snowflake dashboards, empowering data scientists and leadership to monitor performance and usage effectively

Northeastern University | Boston, MA   *September 2024 – April 2025*
Algorithms & Data Structures Teaching Assistant
- Led labs and office hours to help students understand fundamental algorithms and computer science principles
- Wrote homework problems and programming assignments to further students' learning

Alignable | Boston, MA   *May 2023 – December 2023*
Software Engineer Co-op, Data and Infrastructure
- Directed software engineering efforts for the site-wide "Local Business Person of the Year" contest within a tiger team, ensuring reliable interactions for over 300k users
- Spearheaded the migration from the legacy Ruby admin interface to React, utilizing ElasticSearch and new Elixir endpoints to halve data query times
- Designed and engineered a GitHub Actions flow which integrates with Slack to notify code authors of test failures, expediting issue resolution

Wayfair | Boston, MA   *July 2022 – December 2022*
Software Engineer Co-op, Machine Learning Platforms
- Introduced new API endpoints to extend functionality of feature store platform, improving self-serviceability and reducing number of subsequent support tickets
- Led end-to-end implementation efforts for improved feature validation using Airflow, mitigating effects of data drift in response to a large-scale data migration
- Published feature serving client to an internal Python package, further standardizing ML development at Wayfair

MIT Beaver Works | Cambridge, MA   *July 2019*
Program Alum
- Engaged in machine learning lectures given by Lincoln Lab researchers, particularly in context of medicine
- Utilized Python, pandas, and Scikit-learn to predict an NFL player's likelihood of developing CTE
- Presented findings at poster session at end of program, attended by hundreds of students and family members

PROJECTS

Molecule-Protein Binding Affinity Using Machine Learning Techniques   *October 2024 – December 2024*
- Developed neural network models to predict molecule-protein binding affinity, using 294 million sample dataset
- Analyzed molecular building block synergies to address massive class imbalance and improve model interpretability

NoteSearch: A Personal Search Engine Using Vector Embeddings   *September 2024 – October 2024*
- Converted academic PDFs into vector embeddings using the OpenAI Embeddings API and stored them in a Pinecone vector database for fast, similarity-based search
- Built a NodeJS CLI tool to compare user queries with stored notes using cosine similarity, enabling quick retrieval of relevant text from course materials and optimizing the study process