

Marcus Roldan

(973) 229-3445 | [Personal Website](#) | roldan.m@northeastern.edu | [LinkedIn](#) | [GitHub](#)

Work Experience

Wishroute Inc.: **Full-time Software Engineer Intern** | Boston, MA | January 2022 – August 2022

- Worked cross-functionally with Operations and Technical team members to synthesize requirements for internal and customer-facing analytics dashboards.
- Built SQL queries to allow for efficient, scalable KPIs and designed clear, insightful dashboards.
- Contributed to product development and updates to Java backend infrastructure in an AWS serverless architecture.
- Participated in business strategy and product development discussions.
- Embraced a dynamic high-growth startup environment and demonstrated the ability to adjust responsibilities to align against business priorities.

Academic Experiences and Personal Projects

311 Infrastructure Issues Identifier ([Front-end Prototype](#)): *(Python)*

- Performed text-classification on reports of Illegal Parking to diagnose infrastructure issues around Boston.
- Classification strategy: fuzzy keyword matching, with a pipeline to refresh data from Boston's 311 API.
- Implemented interactive front-end using MapBox GL to visualize geospatial data and support data filtering.
- Collaborated with the Boston Cyclist Union's Data Science team for inclusion into upcoming data-dashboard.

AI for Automatic Comment Generation Research Project ([GitHub Repo](#)):

- Conducted a literature review and synthesized an annotated bibliography of the state of research in Sept. and Oct. 2023 regarding Large Language Models and other techniques for automatic comment generation.
- Utilized findings from the annotated bibliography to propose research recommendations.

Boston Integrated Cycling Route Engine ([BICRE](#)): *(Python, JSON, Flask, JavaScript, HTML, CSS)*

- Augmented functionality of Google Maps to create integrated (cycling and transit) routes.
- Incorporated Google's Directions/Geocoding APIs, Maps JS Library; MBTA API to create routes.

Ridership and Operations Visualization Engine ([ROVE](#)): *(Python)*

- Adapted existing source code to allow for visualization and analysis of OV (Dutch) transit data.

Distributed Maze Game: *(Java, JUnit, JSON, Bash Scripting)*

- Executed test driven development to implement server/client communication via the Remote Proxy and Observer patterns utilizing TCP/Java Sockets to manage multiple game instances across clients
- Engaged agile development through extensive code-reviews across dynamic teams, code bases, and languages to ensure high readability and adherence to socially conscious development principles.

Education

Northeastern University, Boston, Massachusetts September 2020 – Present

Khoury College of Computer Sciences: Candidate for **Bachelor of Science in Computer Science**, expected 2024

Relevant Courses: Artificial Intelligence | Natural Language Processing | Software Development

Honors and Badges: **GPA: 3.41 / 4.00** | Northeastern *Global Work Citizen* Badge | Dean's List

Activities: Spanish Honors Society (Sigma Delta Pi), Transportation Engineering Club, Refugee and Immigrant Cross-cultural Conversation Partner Program, Computer Science Mentorship Organization

Skills, Tools, and Technical Knowledge

Python, Java, JavaScript, Git, SQL, AWS, NumPy, Pandas, Scikit-Learn, PyTorch, Matplotlib, Mapbox, Vis.js