Marcus Roldan

marcusaroldan@gmail.com | (973) 229-3445 | marcusaroldan.github.io/project-portfolio |
linkedin.com/in/marcusaroldan
github.com/marcusaroldan

Professional Summary

Recent CS graduate with a focus on artificial intelligence, full-stack web development, and applied civic tech. Proven ability to lead technical teams in startup environments and build scalable ML-backed solutions. Passionate about delivering impactful tools that integrate data, cloud infrastructure, and user-focused design.

Skills, Tools, and Technical Knowledge

Languages: Python, Java, SQL, JavaScript/TypeScript

Frameworks/Libraries: Express, Auth.js, Next.js, Flask, React, LangChain, Scikit-Learn, PyTorch

AI/ML Tools: Amazon Bedrock, SageMaker, Rekognition, Textract; OpenAI Models; HuggingFace; NLTK; Pandas; NumPy; Matplotlib

Work Experience

Forward Deployed Software Engineer, Eden, Inc. Jan 2025 – present

- Led MVP development during a key transition; balanced speed with scalable architecture.
- Acted as interim technical lead; defined engineering frameworks, practices, and team direction.
- Mentored junior developers and integrated open-source tools to optimize delivery.
- Owned product infrastructure and laid groundwork for future scaling.

Full-time Software Engineer Intern, Wishroute, Inc. – Portland, ME Jan 2022 – Aug 2022

- Built scalable KPIs and SQL-powered dashboards for internal and customer-facing analytics.
- Contributed to Java backend improvements in AWS serverless architecture.
- Participated in product strategy and adapted quickly within startup priorities.

Education

Khoury College of Computer Sciences at Northeastern University, BS in Computer Science, concentration in Artificial Intelligence Sept 2020 – Dec 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

Projects

Personal Retrieval Augmented Generation System (Python, LangChain)

- Developed a Python-based Retrieval Augmented Generation (RAG) system using LangChain and OpenAI's GPT models, implementing vector similarity search with ChromaDB and HuggingFace embeddings to enable accurate document retrieval and contextual question answering.
- Architected a scalable document processing pipeline supporting PDF, HTML, and Markdown formats, utilizing NLTK and unstructured.io for text extraction, with intelligent chunking and batch processing to handle large document collections efficiently.
- Implemented a configurable command-line interface with YAML-based configuration management, allowing dynamic selection of LLM models, fine-tuning of embedding parameters, and customization of retrieval settings for optimal performance.

311 Infrastructure Issues Identifier (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.

Boston Integrated Cycle Route Engine (BICRE) (Python, Flask)

- 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.