MAMUNA CHAUDHRY

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EDUCATION

The City College of New York

New York, NY

Bachelor of Science in Computer Science

Expected December 2026

Relevant Courses: Data Structures, Algorithms, Software Design Lab, Website Design, Probability & Statistics, Data Science

SKILLS

Languages: Python•Javascript•SQL•Typescript•Java•C++•HTML•CSS

Frameworks: Flask • React • Node J S • Pandas • Num Py • Matplotlib • Seaborn • Network X • Material UI

Tools: AWS.Figma.Wordpress.Linux/Unix.Firebase.MySQL.MongoDB.Vercel.Git.Jupyter Notebook.Google Analytics

EXPERIENCE

The City College of New York | Software Engineer Fellow | New York, NY

January 2025 - Present

- Optimized assistive application by integrating a new Text-to-Speech API, reducing response time by 50%
- Conducted customer discovery, user research, & testing at vision rehab centers to optimize feature accessibility
- Applied **prompt** engineering for large language models (LLMs) to enhance accuracy and contextual relevance
- Analyzing quantitative and qualitative data to develop an assistive tech research paper on key findings

National Intelligence University | Software Engineer Research Intern | Remote

January 2024 - May 2024

- Built a data tool using CAMEO taxonomy & GDELT data to analyze global event data and support research
- Preprocessed 600K+ records and refactored backend, cutting response time by 20% and code length by 30%
- Implemented a network graph algorithm to find direct/indirect connections between entities
- Integrated article frequency counts and source URLs for each entity pair to enhance analytical insight
- Presented project scope to data scientists in the intelligence community and findings in weekly Agile briefings

neARabl Inc. | *Software Engineer Intern* | *New York, NY*

July 2023 - August 2023

- Developed an ETL pipeline to process 800K+ socioeconomic data records for a construction application
- Engineered features and optimized data workflows to support ML model integration
- Built 35 visuals using Python to reveal patterns and improve decision-making through data-driven storytelling

PROJECTS

Buddy Walk | MongoDB, React, NodeJS, Typescript, Docker, Vite, Figma, GCP | GitHub | Live App

Sep 2024 - Present

- Deployed a multimodal assistive app to help Blind and Low Vision (BLV) users travel independently
- Integrated GPT-4 via OpenAI API with Google Maps API to deliver real-time geolocation-based assistance
- Developed an accessible user interface with mockups using Figma to ensure usability for visually impaired users
- Collaborating as a team of **4** engineers, organizing weekly agile sprints to **improve efficiency** and development

PropertyIntel | Flask, React, Supabase, Figma, Vercel, cURL | GitHub | Live App

Oct 2024 - Dec 2024

- Deployed a real estate app with 2 engineers to find real-time NYC building complaints & violations
- Developed a RESTful API with 12 endpoints and 3 search filters for retrieving 2.9M+ records, using cURL for testing
- Implemented geocoding & the Google Maps API for a map-based interface, boosting user engagement by 20%
- Integrated complaint and disposition codes with PDF documentation to provide more detailed property insights

LEADERSHIP & EXTRACURRICULARS

CodePath SWE Fellow	Present	Machine Learning for Time Series Data	March 2025
Supervised Learning	April 2025	Data Structures and Algorithms	February 2025
Customer Analytics and A/B Testing	April 2025	BMCC Data Science Hackathon (1st Place)	June 2023