MAMUNA CHAUDHRY

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EDUCATION

The City College of New York — New York, NY
Bachelor of Science in Computer Science — Expected May 2026
Relevant Courses: Data Structures, Algorithms, Software Design Lab, Website Design, Discrete Structures, Senior Design I/II

SKILLS

Languages: Python•Javascript•SQL•Typescript•Java•C++•HTML•CSS
Frameworks: Flask•React•NodeJS•Pandas•NumPy•Matplotlib•Seaborn•NetworkX•Material UI
Tools: Figma•Wordpress•Linux/Unix•Firebase•MySQL•MongoDB•Vercel•Git/GitHub•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%** (**10s** to **5s**)
- Conducted **customer discovery and user research** at vision rehab centers (Lighthouse Guild, Visions), tested beta app with BLV users to **optimize feature** accessibility
- Analyzing **quantitative** and **qualitative** user 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

neARabl Inc. | *Software Engineer Intern* | *New York, NY* — July 2023 - August 2023
- Developed an **ETL** pipeline to process **800K**+ socioeconomic data records for a mobile AI 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 a WCAG-compliant user interface, **ensuring accessibility** for visually impaired users
- Collaborating as a team of 3 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 web app using MVC architecture 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 with lat/long, Google Maps API for map-based interface, **boosting** user engagement by **20%**
- Integrated complaint and disposition codes with PDF documentation to provide **more detailed** property insights

EXTRACURRICULARS & CERTIFICATES

Unsupervised Learning	May 2025	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 Winner)	June 2023