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, Java, C++, Typescript, HTML, CSS
Frameworks: Flask, React, NodeJS, Pandas, NumPy, Matplotlib, Seaborn, NetworkX, Material UI
Tools: PyCharm, VS Code, EclipseIDE, MySQL, MongoDB, Figma, Linux, Vercel, Git, Jupyter, 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**)
- Led user research and UX testing by conducting interviews at vision rehab centers, Lighthouse Guild, & tested the beta app with blind and low vision (BLV) users at Visions to optimize feature accessibility
- Analyzing quantitative and qualitative user data to support development of an assistive tech research paper

National Intelligence University | *Software Engineer 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