

# 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, 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