Hassan Alfareed

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Education

• **Master's** degree in Data Analytics Engineering **at Northeastern University–Boston**	*graduating in Dec. 2027*
• **Bachelor's** degree in Computer Science **at Rutgers University–New Brunswick**	*graduated in Jan. 2024*

Work Experience

Software Development Engineer Intern at The City Tutors Inc., New York, NY   *April 2024 – Jan. 2025*

● Full Stack Development of the [City Tutors Portal,](City Tutors Portal) a Django-based web application serving over 4,000 users and 46 partner organizations through software development lifecycle.
  ○ Integrated OpenTelemetry with Honeycomb.io to create an observability solution for real-time performance monitoring, enabling faster detection of bottlenecks and system errors.
  ○ led the release and development of version 2.0 of our matching algorithm that pairs hundreds of users with tutors each month, focusing on data accuracy and database performance
  ○ Integrated the Google OAuth protocol to simplify the sign-in process and reduce user drop-off, with 34% of users adopting it post-launch as a superior authorization method.
  ○ Designed and implemented an email verification system using token generation to ensure integrity and authenticity in account creation, which reflected in increased marketing engagement clicks by 18%
  ○ Resolved complex integration issues with the existing user authentication flow, ensuring a seamless experience for thousands of users.
  ○ Authored internal onboarding documentation for project deployment in a production environment and environment variable configuration, accelerating onboarding time for incoming interns.

Projects

● <u>**Geeks4Geeks Scraper RSS Feed**</u>   **Dec 2023 – Feb 2024**
- Developed an email-subscription tracker for trending GeeksforGeeks articles using Python, cutting off 70% of the web-browsing process by bypassing ads and sign-in pop-ups. And automated deployment with **GitHub Actions** and **Docker.**

● <u>**Urinalysis Test Predictive Modeling with Neural Network**</u>   **Oct 2023 – Jan 2024**
- Developed a predictive model using **TensorFlow** to identify urinary tract infections from urinalysis data with 96.24% accuracy.

● <u>**CSV Dataset Splitter GUI Application**</u>   **Oct 2023 – Nov 2023**
- Utilized **Tkinter** for the interface and implemented multithreading in python to prevent window freezes, improving the application's performance with large CSV datasets splitting.

● <u>**Automatic Memory Leaks Management**</u>   **Sep 2023 – Oct 2023**
- Developed a **Bash** script to manage memory leaks in 'Escape from Tarkov', reducing CPU usage by 15%.
- Assigned a logging algorithm to record any adjustment of files onto JSON file as a cache mechanism.

● <u>**Twitter Tweet Analysis**</u>   **Jul 2023 – Aug 2023**
- Conducted sentiment analysis on the top 50 words from celebrity tweets using **Pandas**, **NLTK**, and **Scikit Learn**.

● **Frameworks / Libraries:** Django, OpenTelemetry, Google API Console, SQLite, Pandas, Scikit Learn, Tensorflow, Docker, Git, Github Actions, Pylint.
● **Languages**: Python, Java. Familiar with: C, Bash, Javascript. HTML, regex.