

Tarif Khan

khan.ta@northeastern.edu | (347)-636-4663 | <https://www.linkedin.com/in/tarif-khan-a23897229/> | [Github](#)

EDUCATION

Northeastern University, Khoury College of Computer Sciences

Boston, MA

Candidate for BS in Computer Science | Concentration: Artificial Intelligence | GPA: 3.6

May 2025

Relevant Coursework: Artificial Intelligence, Algorithms & Data Structures, Machine Learning, Web Development

Awards: Dean's Scholarship, Dean's List, Wellington Management Hackathon Finalist (2024)

WORK EXPERIENCE

Wellington Management

Boston, MA

Quantitative Researcher Co-op

December 2023 - July 2024

- Developed pre-trade cost models for Municipal Bonds, Securitized Products, Derivatives, and Futures in Python
- Built a project leveraging Python to process Citi and Morgan Stanley BWIC files daily into two data lakes
- Engineered a notebook to scrape a general inbox of trade insights and summarize everything with the GPT-4 API
- Published an internal paper on Artificial Intelligence outlining the constructs of LLMs and transformers
- Implemented a system to scrape HIIVE, William Blair and Citi IOI emails and process the data into data lakes
- Deployed an internal API for scraping and processing Outlook emails used by 30 users across 128 daily jobs

Khoury College of Computer Sciences at Northeastern University

Boston, MA

Teaching Assistant: Algorithms and Data Structures

April 2024 - June 2024

- Assisted 110 students by holding office hours, and instructing recitations
- Graded weekly homework assignments, midterm exam, and the final exam alongside professors

Career Peer Ambassador

September 2023 - April 2024

- Mentored 328 freshmen from the class of 2027 with regards to class programming and career planning
- Connected 43 freshmen from low income minority backgrounds to summer internships in computer science

Teaching Assistant: Discrete Structures

August 2022 - December 2022

- Administered weekly office hours and facilitated discussion through Piazza threads for 755 students
- Graded weekly homework assignments, midterm exam, and the final exam alongside professors

Quantum Technologies

New York, NY

Quantitative Software Engineer Summer Intern

June 2023 - September 2023

- Collaborated with quantitative researchers to implement a proprietary trading strategy for XAUUSD using Python
- Enhanced the performance of traders through trade cost analysis (TCA) up to a 15% increase in alpha per trade
- Created a SQL-based database to store and manage trade history details for 6200 trades

Scotiabank

New York, NY

Software Engineering Co-op

January 2023 - June 2023

- Released a platform to recover lost single as well as grouped trade files sent from Goldman Sachs, JP Morgan, Omgeo, Jane Street and 11 other clients through input of a Swift Reference or Message ID
- Integrated SQL queries extracted from XML property files using JavaSQL to match input to a trade file
- Searched through 6 servers using JSCH to search for, display contents, and present file paths for matching files
- Leveraged Java Swing prioritizing a Multiple Document Interface and JTables for the GUI
- Located and restored 6800 lost trade files in the first two months of release

PROJECTS

MakeMoney Stock Tracking Tool

December 2023

- Engineered the backend infrastructure using Node.js, Express, Axios, and MongoDB
- Wielded the Yahoo Finance API to fetch and store real-time stock data
- Developed the frontend with React, JavaScript, and Redux, empowering users to manage their stock portfolios

Youtube Video Analysis Tool

December 2022

- Engineered a program in Python with Jupyter Notebook to model whether a Youtube video would be successful
- Trained the model using sklearn as a decision tree and linear regression model through hyper parameter tuning
- Published and visualized findings using pandas, numpy, and seaborn after cleaning Youtube's data

NUFS File System

November 2022

- Created a file system in C using NDFS where files, directories, and other types of data can be stored
- Designed the file system to create, modify, delete, and allocate memory for single use as well as looped use

TECHNICAL KNOWLEDGE

Programming Languages: Java, Python, C, C++, JavaScript, React, Node.JS, Typescript, HTML, CSS, Assembly

Environment Knowledge: Visual Studio Code, IntelliJ Idea Ultimate, Github, Terminal, Jupyter Notebook, Linux, Unity