

# Rafan Ahmed

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## OBJECTIVE

Computer-science student specializing in **AI and data analytics**, with hands-on experience in **machine-learning-driven trading** and **full-stack development**. Passionate about applying **predictive modeling** and scalable cloud solutions to **enhance financial decision-making** and **customer experience**. Seeking to engage in spaces where **analytical rigor** and **collaborative execution** drive **innovation** in global financial services.

## TECHNICAL SKILLS

**LANGUAGES:** Python, Java, C, JavaScript, HTML/CSS

**ML & DATA:** TensorFlow, Scikit-learn, Pandas, NumPy, Time-Series Forecasting, Generative-AI API Usage

**FRAMEWORKS & CLOUD:** Django REST, Google Gemini API, Next.js, Git/Github, Discord.py, Heroku

**VISUALIZATION:** Matplotlib, Adobe Creative Suite

## EDUCATION

### UNIVERSITY OF NORTH CAROLINA AT CHARLOTTE

(Expected Graduation Fall 2026)

- B.S. Computer Science with concentration in AI & Robotics (GPA 3.32)
- *Relevant Coursework:* Computer Systems, Data Structures & Algorithms, Software Engineering, Matrices & Linear Algebra

## KEY PROJECTS

### ML TRADING STRATEGY - QUANTCONNECT RNN CASE STUDY

(Mar. 2025 - May. 2025)

- Engineered a **SimpleRNN model** with **walk-forward validation** to forecast SPY price moves; dissected **overfitting and look-ahead bias**.
- **Open-sourced** full project and presented findings at UNC Charlotte's College of Computing and Informatics to an audience of **30+ peers** as a learning case study in ML pitfalls.
- Demonstrates **quantitative modeling**, **risk diagnostics**, and transparency for **global markets & risk culture**.
- Tools: Python, Scikit-learn, TensorFlow, Pandas, NumPy, QuantConnect, Pickle

### AI STUDY ASSISTANT - DJANGO WEB APP, GOOGLE GEMINI INTEGRATION

(Jan. 2025 - Apr. 2025)

- Co-developed a **Django-based app** that integrates **Google Gemini API** for **real-time AI-powered learning assistance**.
- Focused on **backend integration**, secure API handling, and **collaborative software engineering practices**.
- Integrated **LLM endpoint** for real-time query assistance.
- Tools: Django, REST APIs, Google Gemini API, Git

### DISCORD BOT - SCALABLE REAL-TIME COMMUNICATION PLATFORM

(Jan. 2025 - Present)

- Co-Engineered a **microservices-based application** with 15+ modular components including user authentication, real-time data processing, and automated workflow management **serving 300+ active users across 3 production environments**.
- Designed **PostgreSQL data architecture** with normalized schemas for user analytics, audit logging, and permission management ensuring data integrity and compliance.
- Built **event-driven processing pipeline** with asynchronous message handling and real-time user activity tracking, demonstrating scalable system design principles.
- Tools: Python, PostgreSQL, SQLite, RESTful APIs, Cloud deployment (Heroku), Real-time analytics

### EAGLE SCOUT, COMMUNITY CEMETARY CONSTRUCTION (MINI-SUPPLY-CHAIN SIMULATION)

(Sep. 2022 - Oct. 2022)

- Coordinated sourcing, logistics, and **20-person volunteer schedule** over a 7-week period to deliver cemetery construction **under budget & on time**.
- Oversaw all aspects of **project management**, including site planning, task coordination, and scheduling.
- Demonstrated **leadership**, **cross-community collaboration**, and **logistical execution** in delivering a meaningful, community-centered infrastructure project.

## WORK EXPERIENCE

### SALES ASSOCIATE — STAPLES

(Jul. 2024 - Oct. 2024)

- Managed Amazon returns, order-fulfillment routing, and in-store inventory audits, processing 100+ SKUs daily.
- Analyzed sales-conversion data to upsell rewards program, increasing membership sign-ups 18%.
- Managed Amazon returns, order fulfillment, and customer support for retail and e-commerce operations.

### HOST — CO WAVERLY

(Feb. 2023 - Dec. 2023)

- Led front-of-house operations and maintained inventory for high-volume restaurant. Optimized seating turnover via data-driven waitlist adjustments; maintained inventory of dining supplies.
- Reinforced team efficiency and inventory replenishment practices—core concepts in supply chain management.

## REFERENCE

Available upon request