

Aitzaz Munir Shaikh

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EDUCATION

Cornell University, College of Arts and Sciences

Ithaca, New York

B.A. in Computer Science and Mathematical Physics (dual major)

Expected Graduation, Dec 2026

- o **Concentrations:** Machine Learning, Artificial Intelligence, Modelling
- o **Related Coursework:** Functional Programming, Data Structures & Algorithms, Object-Oriented Programming, Discrete Structures, Math Modelling, Multivariable Calculus, Linear Algebra, Electromagnetism, Mechanics

EXPERIENCE

Mage Data

New York, New York

Software Developer Intern

May 2024 - August 2024

- Assessed re-identification risks by evaluating k-anonymity, l-diversity, and t-closeness through Python libraries to determine data safety levels and ensure compliance with privacy standards.
- Designed a Python script to provide users with risk metrics, quantitative improvements, and tailored data-masking recommendations, enhancing data security protocols and increasing overall data-handling efficiency.
- Applied machine learning algorithms to calculate optimal k-anonymity levels for complex datasets, balancing information loss and security gain.

Headstarter AI

New York, New York

Software Engineering Fellow

July 2024 - Present

- Programmed 5+ AI apps using NextJS, OpenAI, Pinecone, and StripeAPI, achieving a 98% accuracy rate and efficient functionality as verified by 200+ users.
- Engineered projects from design to development using MVC infrastructure, leading a team of 4+ fellows through continuous deployment processes.
- Coached by Amazon, Bloomberg, and Capital One engineers on Agile, CI/CD, Git, and microservice patterns to optimize development workflows and enhance team collaboration.

PROJECTS

Pantry Tracker | [Github](#)

New York, New York

Next.js, React, Firebase, OpenAI, Vercel

August 2024 - August 2024

- Programmed a CRUD application to track pantry items, with a firebase backend for data storage & user authentication
- Implemented image classification of items using GCP Vertex AI & AutoML
- Integrated a personalized recipe recommender based on pantry contents via OpenAI API

AI Customer Support | [Github](#)

New York, New York

Next.js, React, AWS, OpenAI, Pinecone

August 2024 - August 2024

- Collaborated with a 4-membered team to code an AI customer support system using LLMs and the AWS bedrock API
- Deployed RAG for chatbot responses on knowledge base and architected an LLM orchestration pattern with a router
- Incorporated user authentication to personalize chat experience and hosted web-app to AWS EC2 servers

ChaiOrSleep | [Github](#)

New York, New York

SwiftUI, CoreML, Create ML

May 2024 - June 2024

- Created an app providing users with personalized recommendations on chai consumption based on their sleep cycles
- Utilized regression analysis in Create ML to train a machine learning model with CoreML for prediction analytics
- Connected Core ML model to SwiftUI application enabling real-time predictions based on the users' input data

HONORS AND AWARDS

International Math Olympiad 2023 Training Camp Completion • Top 50 in National Math Talent Contest 2021 & 2022 • Silver Medalist in South-East Asian Mathematical Olympiad (SEAMO) 2021 • Merit in SEAMO 2022 Champions Division • Distinction in UWaterloo Euclid Contest 2022 • Bronze Honor in International Youth Math Contest 2020

SKILLS

Languages: Java, Python, JavaScript, SQL, Swift (iOS), HTML/CSS

Frameworks: Node.js, Next.js, React.js, Firebase, Material UI

Tools: Visual Studio, IntelliJ, Pulsar, Git, Bootstrap, Vercel, Excel, Powerpoint, Office