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.

Systems Limited   **Karachi, Pakistan**
Software Engineering Intern   *Dec 2023 - Jan 2024*
- Facilitated ERP system migration from SAP ECC to SAP s/4 Hana, contributing to a seamless transition.
- Constructed a screensaver for employees using JavaScript, HTML & CSS displaying the project's timeline and progress, increasing employee awareness and contributing to a 15% boost in team engagement.

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

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