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, May 2027*
- 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

Headstarter AI   **New York, New York**
Software Engineering Fellow   *July 2024 - Present*
- Built 5+ AI apps and APIs using NextJS, OpenAI, Pinecone, StripeAPI with 98% accuracy as seen by 1000 users
- Developed projects from design to development using MVC infrastructure leading 4+ engineering fellows
- Coached by Amazon, Bloomberg, and Capital One engineers on Agile, CI/CD, Git, and microservice patterns

Mage Data   **New York, New York**
Software Developer Intern   *May 2024 - Present*
- 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
- Developed a python script to display user risk metrics, provide improvements & safer data-masking recommendations
- Applied machine learning algorithms to calculate optimal k-anonymity, balancing information loss and security gain

Systems Limited   **Karachi, Pakistan**
Software Engineering Intern   *Dec 2023 - Jan 2024*
- Supported ERP system migration from SAP ECC to SAP s/4 Hana, contributing to a seamless transition
- Developed a screensaver for employees using JavaScript, HTML & CSS displaying the project's timeline and progress
- Filtered, sorted, and analyzed data using SQL and Excel tools such as gantt charts

Punjab Police Research Department   **Lahore, Pakistan**
Data Analytics Intern   *May 2022 - August 2022*
- Analyzed 4906 records of child abuse cases to predict vulnerable communities of abuse and identify patterns
- Charted paradigms & created trend-lines to examine relationships between various variables and supplement findings
- Implemented statistical algorithms such as k-means clustering and applied sampling techniques to generalize results across the province

PROJECTS

Pantry Tracker   **New York, New York**
Next.js, React, Firebase, OpenAI, Vercel   *August 2024 - August 2024*
- Developed a CRUD application to track pantry items, implementing a firebase backend for data storage
- Implemented image classification of items using GCP Vertex AI & AutoML
- Integrated a personalized recipe recommender based on pantry contents via OpenAI API

ChaiOrSleep   **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 • 1st globally in International Academic Marathon's Math module • Bronze Honor in International Youth Math Contest 2020

SKILLS

Programming: Java, Python, JavaScript, HTML/CSS, SQL, Node.js, Next.js, React.js, Swift (iOS)
Tools: IntelliJ, Pulsar, Git, Bootstrap, Excel, Powerpoint, Office