Ashna Ali

9516 N Lane Ave

Kansas City MO 64157

(816) 728-0672

ashna15ali@gmail.com

Portfolio Website

OBJECTIVE

To obtain a part-time position during my final semester as a graduate student, leveraging my expertise in machine learning and AI. I aim to gain technical and professional experience in these fields. Post-graduation, I seek full-time opportunities in machine learning/AI or software development to apply and further develop my skills acquired through my education and experience.

EDUCATION

University of Missouri-Kansas City
Master of Science in Computer Science

Expected December 2024

University of Missouri-Kansas City
Bachelor of Science in Computer Science

May 2023
University Honors, GPA 3.25

SKILLS

Technical Skills

- Full stack knowledge (database, back end, front end)
- Python skills with Tensorflow and Pytorch
- Web-development skills

Programming Languages

- Java
- Python
- C++
- C#
- ReactJS
- SQL

Soft Skills

- Good Communication
- Troubleshooting
- Work independently of with a team
- Ability to work in an agile environment
- Flexible

PROJECTS/ACTIVITIES/CLASSES

Applied Cryptography (Summer 2024)

- Mastered advanced cryptographic algorithms: symmetric/asymmetric encryption, hashing, digital signatures, and privacy-preserving techniques.
- Led front-end development of a web application integrating AES, ECC, and post-quantum cryptography for healthcare data privacy.
- Deployed the application on a PostgreSQL database within Docker, successfully applying post-quantum cryptography to existing healthcare solutions.

Cloud Computing (Spring 2024)

- Gained expertise in AWS, Microsoft Azure, and Google Cloud Platform.
- Developed a web application that deployed GitHub projects in Docker containers, with a focus on front-end development using Next.js and ReactJS.
- Integrated AWS services (Elastic Container Registry, S3 storage) for seamless deployment; project won first place in a class competition.

Deep Learning	• Developed custom CNN models for image classification and optimized performance using CIFAR-10 and Tiny ImageNet datasets.
	• Applied transfer learning with VGG19 and ResNet, enhancing model accuracy across multiple datasets.
	• Fine-tuned models for complex tasks and evaluated memory retention and functional gain.
	• Implemented segmentation and style transfer techniques, experimenting with ROI localization and artistic transformations.
Java Programming	• Developed a desktop application interface in Java Swing for a receptionist at an energy supplier, enabling efficient lookup of customer billing information and bill generation.
	• Engineered both the front-end and back-end components, ensuring a seamless user experience and robust functionality.
	• Managed the integration with a Microsoft SQL database, optimizing data retrieval and storage for quick access to customer records.
Software Engineering Capstone (Spring 2023)	• Coordinated a team of four to engineer a Graduate Teaching Assistant application submission portal for UMKC using the MERN stack (MongoDB, Express, ReactJS, NodeJS).
	• Optimized the project by implementing Redux for state management to handle both student and administrative views.
	• Addressed challenges in team communication and focus by instituting sprint due dates and leveraging group chats, leading to the successful delivery of all project features.
	• Achieved an 'A' grade upon project completion after refining and presenting the final application.

WORK EXPERIENCE

University of Missouri-Kansas City **Missouri Institute of Defense and Energy** **Kansas City, MO**	Graduate Student Research Assistant **May-August 2023**
	Conducted research on machine learning models (mainly image classification and segmentation) using Tensorflow and Pytorch while assisting fellow graduate/Ph.D students with their projects.
Oracle Cerner Corporation **Kansas City, MO**	Technical Apprentice **May 2019-Nov 2021**
	Learned and applied web development skills and worked on small projects for the Integrated Charting team. Main solution was a web application that tracked patient's symptoms and diagnoses.
Oracle Cerner Corporation **Kansas City, MO**	Cerner Scholar **Apr-May 2019**
	Through Northland CAPS, worked with the Clinical Center Development team and learned test automation using Eggplant
Cobblestone Family Health **Liberty, MO**	Risk Stratification **Oct 2017-Jan 2018**
	Used risk stratification organize patient records using electronic health system