SAI TEJA ALASYAM

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EXPERIENCE

Mindful AI Framework Assistant Jun 2025 – Present
WP Carey School of Business, Arizona State University *Remote*

- Developed an **AI risk repository** leveraging the Mindful AI Framework, improving classification and taxonomy coverage.
- Designed and implemented a **multi-agent pipeline** for AI risk data retrieval and classification.
- Enhanced MIT AI risk taxonomy classification, labeling **1,100+ incidents**, leading to measurable improvements in dataset quality.

EDUCATION

Master of Computer Science, Arizona State University Expected Dec 2025
CGPA: 4.0
Relevant coursework: Software Verification Validation & Testing, Data Processing at Scale, Data Visualization

PROJECTS

Face Recognition Edge Computing System (AWS IoT Greengrass, SQS, Lambda) Feb 2025 – Apr 2025

- Engineered an **edge-based face recognition pipeline** on AWS IoT Greengrass, achieving **low-latency inference** and reducing cloud-only dependency for real-time image processing.
- Developed and deployed an **MTCNN-based face detection component** on EC2 Greengrass core; **streamlined request throughput by 30%** via SQS-based request–response queues integrated with AWS Lambda recognition services.
- Configured IoT clients with **secure certificates and MQTT messaging**, ensuring **100% reliable delivery** of live image streams between devices and cloud endpoints.
- Validated system scalability and robustness using an **autograder with workload generators**, guaranteeing correctness across **100% of test cases** and fault tolerance under parallel requests.
- Optimized edge pipeline to handle **No-Face cases locally**, reducing unnecessary cloud requests by **15%**.

Graph Processing & Streaming Analytics (Neo4j, Docker, Kafka, Kubernetes) Sep 2024 – Nov 2024

- Designed and deployed a **graph processing system** on Neo4j using Docker containers, enabling efficient ingestion and querying of the **NYC Yellow Cab dataset (20M+ trips)**.
- Implemented **PageRank and Breadth-First Search (BFS)** algorithms using the Neo4j Graph Data Science library, identifying high-traffic locations and traversal paths in large-scale trip networks.
- Built a **streaming data pipeline** with Kubernetes (Minikube) and Apache Kafka, orchestrating ingestion of trip data into Neo4j for near real-time analytics.
- Automated deployment using **Helm charts and YAML configurations**, ensuring reproducibility, scalability, and fault tolerance in distributed environments.
- Achieved a fully functional **end-to-end pipeline** (Kafka → Neo4j → Analytics) validated through grading scripts, reducing manual setup effort by **>40%**.

SKILLS

Programming Languages: Python, C++, Java, SQL, Bash
Frameworks & Libraries: Transformers, LangChain, Django, Bootstrap
Cloud & DevOps: AWS, GCP, Docker, Kubernetes, Helm, Anaconda
Systems & Tools: Unix/Linux, Apache Kafka, Minikube, Node.js Runtime, MCP (Model Context Protocol)
Domains: Deep Learning, NLP, Generative AI, AI Agents, Graph Analytics, Edge Computing, APIs