Keerti Aisham

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Education

Georgia State University Aug 2024 – Dec 2025
Masters, Computer Science *GPA: 4.0/4.0*

G. Narayanamma Institute of Technology and Science June 2018– June 2022
Bachelor of Technology, Information Technology *GPA: 4.0/4.0*

Experience

Georgia State University **Aug 2024 – Present**
Graduate Research/Teaching Assistant Atlanta, GA

- Implemented **group-aware student-outcome prediction** on **10k+ records**, as measured by **accuracy 85%**, by implementing **MERF** with `GroupKFold` (by classroom_id) and **hyperparameter tuning** against Random Forest baselines.
- Conducted **model interpretability** and **error analyses** (**feature importance**, **partial-dependence plots**), **documented insights** for educators, and **refined features** to catch more **at-risk students**.
- Teaching and mentoring **over 100+ undergraduate students** in *Python Programming*, delivering lectures, grading assignments, and holding office hours to improve project completion rates.

Immersive Solutions **May 2025 – Aug 2025**
Software Engineer Intern Denver, CO

- Delivered **accurate, instruction-following images**, measured by **92% accuracy** on **1,000+ prompts** (human review), by building a **GPT-4 + Azure AI Search (RAG)** pipeline that writes grounded prompts.
- Led the migration from **LLM fine-tuning** to a cost-efficient **RAG** architecture; redesigned inference workflows, and reduced **GPU hours** - saving thousands of dollars as verified in **Azure Cost Management**.

Micron Technology **Aug 2022 – Aug 2024**
Software Engineer India

- Accelerated **returned-product root-cause investigations** for **100+ engineers** (SSD, NAND, NOR, MNAND, DRAM, MCP, HBM), as measured by diagnosis time cut from 4d to 2d, by building **automated log ingestion** and **interactive dashboards**.
- Helped migrate legacy return-handling modules into a **microservice-based architecture** with Java, deploying services on AWS EC2, storing artifacts on S3, and using Lambda for automation.
- Optimized backend **SQL queries** by restructuring joins and indexing critical tables, cutting execution times from 12s to 7s on defect reports and scaling to handle **5,000+ product return records/month**.
- Maintained **high availability** during releases, as measured by **99.9% uptime**, by running **Docker** services with **Kubernetes** rolling updates and health checks.
- Implemented a **Kafka monitoring pipeline**, reducing critical incidents by 25% and enhancing overall reliability.
- Received a **Bravo Award** for quickly ramping up on RMAFast and delivering critical features, including **bulk attribute update functionality** and contributions to the HBM module.View Recognition

Apple **Sep 2021 – July 2022**
Project Intern - Apple Maps India

- Developed a full-stack web application (**React** and **Java** REST API), cutting average API latency by **30%** in staging and improving **Apple Maps** geocoding/route rendering flows.
- Implemented **JWT** authentication with secure session handling (refresh), mitigating token replay and unauthorized access.

Technical Skills

Languages & Frontend:	Python, Go, Java, R, C, C++, JavaScript/TypeScript, Scala, SQL, React.js, Angular, Vue, HTML5, CSS3
Backend & Services:	Spring Boot, FastAPI, Django, Flask, Node.js, Microservices, Kafka, Agent Frameworks (LangGraph)
Data & ML:	scikit-learn, pandas, NumPy, matplotlib; LLMs (GPT-4, multi-LLM integration), RAG, Azure AI Search, Intelligent Metadata, Automation, AI Agents, MCP servers, LangChain, LangGraph, AutoGen, vector search, embeddings, hybrid approaches
Cloud & DevOps:	AWS, Azure(Azure AD, OAuth), Docker, Kubernetes, CI/CD (GitHub Actions, Jenkins)
Databases:	Relational (PostgreSQL, MySQL, SQL Server, Oracle); NoSQL (MongoDB, DynamoDB, Cassandra); Cache (Redis); Warehouses (Snowflake, Redshift, BigQuery)
Distributed Systems:	Multi-tenant Architecture, Control Plane Design, Tenant Isolation, Resource Allocation

Certifications

AWS - AWS Certified Developer Associate – Microsoft - Microsoft Azure AI Fundamentals

Publications & Presentations

- Kong, J.E., Myers, J.A., **Aisham, K.**, (2025, October). *Significant predictors of mathematical word problem solving: An exploratory study.* Council for Learning Disabilities (CLD) 47th International Conference on Learning Disabilities, Salt Lake City, UT.

Academics Project

Predictive Modeling for Future Term Associations in Scientific Literature Link **Jan 2025 – May 2025**

- Built an AI-driven system in **Python** using **BERTopic + LSTM** to analyze thousands of research papers, identifying 50+ emerging trends and predicting future term associations with **87% accuracy**.