AMOGH JAGADISH TAMBAD

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EDUCATION

Master of Science, Computer Science May 2025
Arizona State University, Tempe, AZ 4.00 GPA
Coursework: Cloud Computing, Data Processing at Scale, Data Mining, Software Security

Bachelor of Technology, Computer Science May 2021
REVA University, Bangalore, KA 3.77 GPA
Coursework: Data Structure and Algorithms, Operating Systems, Cloud Computing, Computer Networks

SKILLS

Languages: Python, Scala, SQL, Go, Java, JavaScript/TypeScript
Big Data & Processing: Apache Spark, Apache Kafka, Apache Airflow, Pandas, NumPy, PySpark
Database Systems: SQL(MySQL, PostgreSQL), NoSQL (MongoDB)
Tools: Linux, Unix, Git (Version Control), Jenkins, ArgoCD, Redis, Prometheus, Cursor, CoPilot, Claude Code
Cloud Technologies: Docker, Kubernetes, Terraform, Helm, AWS(EC2, S3 Lambda, ECS, CloudFormation, EKS), GCP
Miscellaneous: Distributed Systems, RESTful APIs, Microservices, Object-Oriented Programming, Agile, Data Structures

PROFESSIONAL EXPERIENCE

Research Assistant, VISA Lab Jun 2025 - Present
Arizona State University, Remote

- Developed **FlowBench**, a workflow-based distributed benchmark by leveraging **Python**, **Docker**, **Kubernetes**, and FaaS principles to evaluate custom edge computing applications, providing a comprehensive report on 6+ metrics.
- Built and tested a video analytics workflow via **OpenCV** on a containerized microservices architecture with Kubernetes, processing 10,000+ frames per minute.

Software Engineer Intern Jun 2024 - Aug 2024
Arch Mortgage Insurance, Greensboro, NC

- Architected and deployed a scalable data processing solution using **Cribl Stream** and **JavaScript**, creating 10+ conditional pipelines that processed 500K+ daily log events with automated filtering, transformation, and routing to Splunk
- Reduced data ingestion costs by 35% through intelligent log filtering and aggregation, implementing custom business logic to eliminate redundant data.
- Automated container registry synchronization across enterprise infrastructure using Ansible and Red Hat APIs, eliminating 90% of manual processes

Software Engineer May 2021 - Jul 2023
Cerner Healthcare (Oracle Cerner), Bangalore, KA

- Led cloud data migration initiative, designing and implementing Python-based **ETL** pipelines to migrate **15TB+** of enterprise healthcare data from on-premises Oracle databases to AWS, achieving 80% migration completion with zero data loss
- Automated the monitoring and alerting systems with **Zabbix** and **Splunk** APIs, developing custom dashboards and incident response automation that sped production resolution by 30%
- Implemented **RBAC** with **AWS IAM** and Zabbix User roles, enhancing security and reducing login errors by 60%, while streamlining user access management across the system.
- Deployed **300+** bi-weekly microservice releases, tracked via **JIRA**, through **Chef** configuration management and custom deployment scripts, accelerating delivery of new UI and backend features

PROJECTS

JobTrail - Go-based Job Tracker May 2025

- Developed a full-stack job tracking application using **Go** backend (Gorilla Mux), **SQLite** database, and **JavaScript** browser extension, reducing manual job application logging time by 80% through automated data capture from 15+ major job boards
- Built **RESTful API** with sub-200ms response times supporting **500+** job records with CRUD operations and real-time filtering, via responsive web interface using **Bootstrap** and **vanilla** JavaScript

RAG Implementation for arXiv Papers Nov 2024

- Devised a multimodal pipeline using **Python** to extract and vectorize content from **2000+** arXiv papers, implementing **CLIP** and text embedding models, **DynamoDB** indexing and vector database storage
- Implemented a similarity search and summarization pipeline with DynamoDB and GPT-4o mini to deliver concise, contextually relevant responses to user queries with an average response time of under **2 seconds**.