AMOGH JAGADISH TAMBAD

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EDUCATION

Master of Science, Computer Science Aug 2023 - May 2025
Arizona State University, Tempe, AZ 4.00 GPA
Relevant coursework: Cloud Computing, Data Processing at Scale, Data Mining, Software Security

Bachelor of Technology, Computer Science Aug 2017 - May 2021
REVA University, Bangalore, KA 3.77 GPA
Relevant coursework: Data Structure and Algorithms, Operating Systems, Cloud Computing, Computer Networks

SKILLS

Languages and Databases: Python, C++, Bash, SQL (Postgres, MySQL), NoSQL (MongoDB), Go, Scala, HTML, JavaScript, Java
Tools and Frameworks: AWS, Linux, Kafka, PostmanAPI, Docker, Kubernetes, Nginx, Gunicorn, React, Flask, FastAPI, Node.js, PyTorch, TensorFlow, Zookeeper, Splunk, Github Actions, Terraform, Ansible, Git, Gitlab, Prometheus, Grafana, Jenkins
Methodologies: Distributed Systems, RESTful APIs, Microservices Architecture, Object-Oriented Programming, Agile, SDLC, Test Driven Development (TDD)

PROFESSIONAL EXPERIENCE

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

- Developing **FlowBench**, a workflow-based distributed benchmark by leveraging **Python**, **Docker**, and edge computing principles to evaluate custom software performance metrics and optimize deployment algorithms
- Built and tested a video analytics workflow via **OpenCV** on a containerized microservices architecture with Kubernetes, implementing serverless functions for motion detection, frame extraction, face detection, and recognition

IT-Infrastructure-Platform/SRE Intern Jun 2024 - Aug 2024
Arch Mortgage Insurance, Greensboro, NC

- Built a **JavaScript** and **Cribl Stream** based scalable data processing solution and created 10+ conditional pipelines for log filtering and transformation, implementing custom business logic to filter and route logs from **OpenShift** pods to Splunk
- Developed a container image synchronization system through **Ansible** automation scripts and **Red Hat registry** APIs that integrates with **Nexus Repository** for artifact management, eliminating 90% of manual update processes

System Engineer - 1 May 2021 - Jul 2023
Cerner Healthcare, Bangalore, KA

- Developed cloud migration scripts and data transformation pipelines to migrate 80% of enterprise data from on-premises infrastructure to AWS, thereby enhancing access flexibility, security, and cost-efficiency
- Built automated monitoring and alerting systems with **Zabbix** and **Splunk** APIs, developing custom dashboards and incident response automation that sped production resolution by 30%
- Troubleshot and resolved **Jenkins** pipeline issues, minimizing support ticket resolution time by **40%** and ensuring **99.9%** uptime for **CI/CD** workflows, leading to uninterrupted deployment pipelines
- Automated deployment orchestration for **300+** bi-weekly microservice releases through **Chef** configuration management and custom deployment scripts, accelerating delivery of new UI and backend features

ACADEMIC PROJECTS

JobTrail - Go based job tracking Jun 2024 - Present

- Developed a full-stack job tracking application with a **Go** backend, Gorilla Mux router and **Firefox extension** frontend to capture job application data into a structured **PostgreSQL** database
- Implemented automated CSV export and currently building an analytics dashboard using **React** to visualize metrics, reducing manual tracking time by 1—2 hours weekly

AWS-Based Face Recognition App Feb 2024 - May 2024

- Developed and deployed a scalable **Flask** web application using **Python** and **Gunicorn** on **AWS EC2**, implementing HTTP-based image uploads through asynchronous processing pipeline leveraging **S3** storage and **SQS** message queuing
- Architected an **auto-scaling** infrastructure that dynamically scales up to 20 EC2 instances based on SQS queue depth metrics, ensuring optimal performance and cost-efficiency for real-time image processing under variable workloads

RAG Implementation for arXiv Papers Oct 2024 - Nov 2024

- Developed a multimodal data processing pipeline using **Python** to extract and vectorize content from 2000+ arXiv papers, implementing **CLIP** and text embedding models, **DynamoDB** indexing and vector database storage