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, India   3.77 GPA
Coursework: Data Structure and Algorithms, Operating Systems

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.

Site Reliability Engineer (SRE) Intern   Jun 2024 - Aug 2024
Arch Mortgage Insurance, Greensboro, NC

- Filtered and routed logs from OpenShift Kubernetes clusters to Splunk using Cribl Stream pipelines, reducing daily Splunk data ingestion by **40–50 GB** and improving **log search performance by 20%**
- Designed an automated pipeline using Ansible and Red Hat registry APIs to sync updated catalog images to Nexus Repository, reducing manual update time by **90%**

System Engineer - 1   May 2021 - Jul 2023
Cerner Healthcare (Oracle Health), Bangalore, India

- Migrated 80% of data from on-prem to **AWS**, enhancing data access flexibility, security, and cost-efficiency
- Participated in regular on-call rotations with cross-functional teams, leveraging **Zabbix** and **Splunk** for system health monitoring, quality assurance, and resolving production alerts, maintaining **99.99%** service reliability
- Troubleshot and performed root cause analysis **Jenkins** pipeline issues, minimizing support ticket resolution time by **40%** and ensuring **99.9%** uptime for **CI/CD** workflows, leading to uninterrupted deployment pipelines
- Managed **300+** bi-weekly microservice deployments, using **Chef**, while also tracking them with **JIRA**, accelerating delivery of new UI and backend features in a fast-paced production environment

ACADEMIC PROJECTS

End-to-end Deployment Automation   Apr 2025

- Reduced deployment time by 90%, integrating **Terraform** and **Ansible** into **Jenkins**/**GitHub Actions** CI/CD pipeline for AWS EC2 instance provisioning and web service deployment.
- Optimized CI/CD pipelines to dynamically retrieve instance IPs, configure secure SSH access, and deploy services, eliminating manual intervention and resolving **IAM** and resource issues in production-like environments

AWS-based Face Recognition App   May 2024

- Developed and deployed a **Flask**-based image recognition app using **Gunicorn** on AWS EC2, enabling HTTP REST API based uploads and forwarding images to **S3** via **SQS** for asynchronous processing using AWS service API.
- Designed an auto-scaling app tier that scaled up to **20** EC2 instances based on **SQS** queue depth, ensuring efficient, real-time image processing under varying workloads

Kubernetes-based Data Processing Pipeline   Nov 2024

- Engineered a highly scalable data processing pipeline using **Kubernetes** pods for **Apache Kafka** and **Neo4j** that processes **100,000+** NYC taxi records in near-real-time, reducing spatial analytics query time by **60%** and enabling real-time traffic pattern identification

SKILLS

Languages: Python, C++ Go, Java, JavaScript, Typescript, HTML, CSS, SQL (MySQL, PostgreSQL), NoSQL (MongoDB)
Cloud Technologies: AWS (EC2, Lambda, S3, ECS, EKS, etc), Docker, Kubernetes, Helm, Terraform, GCP
Tools: Linux, Unix, Git (Version Control), Bash, Github, Jenkins, Github Actions, Chef, Gitlab, Prometheus, Grafana, Datadog
Miscellaneous: Distributed Systems, Microservices, Object Oriented Programming, Data Structures, Agile, Infrastructure as code (IaC), DevOps, Cloud Infrastructure, TCP/IP, Troubleshooting, Containerization, Effective Communication