

# AMOGH JAGADISH TAMBAD

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## EDUCATION

### Master of Science, Computer Science

Arizona State University, Tempe, AZ

Coursework: Cloud Computing, Data Processing at Scale, Data Mining, Software Security

May 2025

4.00 GPA

### Bachelor of Technology, Computer Science

REVA University, Bangalore, India

Coursework: Data Structure and Algorithms, Operating Systems

May 2021

3.77 GPA

## PROFESSIONAL EXPERIENCE

### Research Assistant, VISA Lab

Arizona State University, Remote

Jun 2025 - Present

- 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

Arch Mortgage Insurance, Greensboro, NC

Jun 2024 - Aug 2024

- 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

Cerner Healthcare (Oracle Health), Bangalore, India

May 2021 - Jul 2023

- 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
- Troubleshooted 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

- Integrated **Terraform**, **Ansible**, with **Jenkins**, and **GitHub Actions** based CI/CD pipeline to provision AWS EC2 instances and deploy web services within **1 minute** of version control changes
- 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, Scala, HTML, XML

**Cloud Technologies:** AWS (EC2, Lambda, S3, ECS, CloudFormation, EKS, ECR, CloudWatch), TensorFlow, Docker, Kubernetes, Helm, Terraform, Jenkins, Github Actions, GCP

**Tools:** Linux (RHEL, Ubuntu), Unix, Git (Version Control), Bash, Github, Ansible, Chef, Gitlab, Prometheus, Grafana, Postman

**Miscellaneous:** Distributed Systems, RESTful APIs, Microservices, Object Oriented Programming, Agile, Test Driven Development (TDD), Infrastructure as code (IaC), DevOps, Cloud Infrastructure, Collaboration, Writing