# AMOGH JAGADISH TAMBAD

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#### **EDUCATION**

Master of Science, Computer ScienceMay 2025Arizona State University, Tempe, AZ4.00 GPA

Relevant 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

Relevant coursework: Data Structure and Algorithms, Operating Systems

#### **SKILLS**

Languages: Python, C++, Bash, SQL, YAML, Scala, HTML, JavaScript, Java

Technologies: AWS, GCP, Linux, PowerShell, PostmanAPI, Splunk, Cribl, Zabbix, Chef, Ansible, Terraform, Docker, Kubernetes,

Helm, Jenkins, Github Actions, Nginx, Gunicorn

Frameworks: PyTorch, TensorFlow, scikit-learn, Flask, FastAPI, React, Node, Next.js

Data: PostgreSQL, MongoDB, Kafka, Spark, Hadoop, ZooKeeper, Prometheus, Grafana, JSON

#### PROFESSIONAL EXPERIENCE

### IT-Infrastructure-Platform/Site Reliability Engineer 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** storage usage by 40–50 GB and improving log search performance by 20%.
- Enhanced log clarity and parsing efficiency by leveraging Cribl Parser and Mask functions, resulting in a streamlined raw field and reducing parsing time to 2-3 seconds per log.
- 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, 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, leveraging Zabbix and Splunk for system health monitoring, troubleshooting server issues, and resolving production alerts within 15 minutes, maintaining 99.99% service reliability.
- 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.
- Managed **300+** bi-weekly microservice deployments, including Splunk and non-Splunk-based services, using **Chef**, accelerating delivery of new UI and backend features in a fast-paced production environment.

## **ACADEMIC PROJECTS**

# **End-to-End Deployment Automation**

Mar 2025 - Apr 2025

- Automated end-to-end AWS EC2 provisioning using Terraform, Ansible, Jenkins, and GitHub Actions, enabling reproducible infrastructure setup and hands-free web service deployments.
- Built and 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.

#### **Kubernetes based Data Processing Pipeline**

Oct 2024 - Nov 2024

- Designed and deployed a scalable, near-real-time data pipeline on Kubernetes with Helm, enabling spatial analytics of NYC Taxi Rides for data-driven urban mobility insights.
- Leveraged Kafka, Kafka Connect, ZooKeeper, and Neo4j for real-time ingestion and graph processing (PageRank, BFS), uncovering location importance and optimizing resource allocation.

## **AWS-Based Face Recognition App**

Feb 2024 - May 2024

- Developed and deployed a Flask-based image recognition app using Gunicorn on AWS EC2, enabling HTTP-based uploads and forwarding images to S3 via SQS for asynchronous processing.
- 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.

## **RAG Implementation for arXiv Papers**

Oct 2024 - Nov 2024

- Extracted and vectorized multimodal content (text, tables, images, equations) from 2000+ arXiv papers using CLIP and text embedding models, storing results in separate vector stores and indexing with DynamoDB.
- Built a semantic retrieval pipeline with top-k similarity search and GPT-40 mini-based summarization, delivering concise, context-aware answers to user queries.