

# AMOGH JAGADISH TAMBAD

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## EDUCATION

### Master of Science, Computer Science

Arizona State University, Tempe, AZ

Aug 2023 - May 2025

4.00 GPA

Relevant coursework: Cloud Computing, Data Processing at Scale, Data Mining, Software Security

### Bachelor of Technology, Computer Science

REVA University, Bangalore, India

Aug 2017 - May 2021

3.77 GPA

Relevant coursework: Data Structure and Algorithms, Operating Systems, Cloud Computing

## SKILLS

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

**Technologies:** AWS, Linux, PowerShell, PostmanAPI, Splunk, Cribl, Zabbix, Chef, Ansible, Terraform, Docker, Kubernetes, Jenkins, Helm, 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/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 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.
- Troubleshoot 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

### 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-4o mini-based summarization, delivering concise, context-aware answers to user queries.

### 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.

### TCR-Epitope Binding Affinity Prediction

Oct 2024 - Nov 2024

- Developed a machine learning pipeline for TCR-epitope binding affinity prediction using pre-trained BERT-base-tcr embeddings and 5-fold cross-validation.
- Achieved 75% accuracy and 80% AUC; evaluated performance using precision, recall, and F1-score for balanced classification metrics.