

AMOGH JAGADISH TAMBAD

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EDUCATION

Master of Science, Computer Science

Arizona State University, Tempe, AZ

May 2025

4.00 GPA

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

Bachelor of Technology, Computer Science

REVA University, Bangalore, KA

May 2021

3.77 GPA

Coursework: Data Structure and Algorithms, Operating Systems, Cloud Computing, Computer Networks

PROFESSIONAL EXPERIENCE

Research Assistant, VISA Lab

Jun 2025 - Present

Arizona State University, Remote

- Developing **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.

Software Engineer (Infrastructure & Reliability) Intern

Jun 2024 - Aug 2024

Arch Mortgage Insurance, Greensboro, NC

- Architected a **JavaScript-based** data processing pipeline with **Cribl Stream**, processing 80GB+ daily logs through 10+ conditional routing rules, reducing Splunk ingestion costs by 30%
- Developed a container image synchronization system using **Python** and **Ansible**, integrating Red Hat Registry APIs with Nexus Repository to automate artifact management and eliminate 90% of manual container updates

Software Engineer (Systems)

May 2021 - Jul 2023

Cerner Healthcare (Oracle Cerner), Bangalore, KA

- Developed and maintained **Java-based** microservices handling 5M+ daily healthcare transactions, implementing **RESTful APIs** and event-driven architectures that reduced patient data retrieval latency by 40
- Built cloud-native data transformation pipelines in **Python** to migrate 80% of enterprise data (500+ TB) from on-premise infrastructure to AWS, designing **ETL** workflows that ensured zero data loss and 99.9% uptime
- Engineered automated monitoring solutions using Python and **Splunk** APIs, developing custom alerting logic and incident response workflows that reduced mean time to resolution (MTTR) by 30%
- Collaborated with cross-functional teams to deliver **300+** microservice releases, implementing feature flags, **A/B testing** frameworks, and rollback mechanisms that improved deployment safety and enabled rapid iteration

PROJECTS

TalkDoc - AI-based Document Filler | Python, FastAPI, React, OpenAI GPT-4

Nov 2025

- Built an AI-powered web application using **FastAPI** and **React** that automates document form completion through conversational interactions, leveraging **OpenAI GPT-4** for natural language understanding and intelligent question generation
- Implemented dynamic conversation flows and document generation, reducing form completion time by **40%** while achieving **90%+ accuracy** in mapping conversational responses to structured document fields

JobTrail - Go-based Job Tracker | Go, Javascript, SQLite

May 2025

- Developed a full-stack job tracking application using **Go** backend (Gorilla Mux), **SQLite** database, and **JavaScript** browser extension, reducing manual job application logging time by 80% through automated data capture from 5+ major job boards

RAG Implementation for arXiv Papers, duration | Python, DynamoDB, CLIP

Nov 2024

- Devised a multimodal pipeline using **Python** to extract and vectorize content from **2000+** arXiv papers, implementing **CLIP** and text embedding models, **DynamoDB** indexing and vector database storage
- Implemented a similarity search and summarization pipeline with DynamoDB and GPT-4o mini to deliver concise, contextually relevant responses to user queries with an average response time of under **2 seconds**.

SKILLS

Languages: Python, Go, Java, JavaScript/TypeScript, C++, SQL

Web & APIs: Flask, FastAPI, Spring Boot, Node.js, React.js, REST/GraphQL APIs

Databases: PostgreSQL, MySQL, MongoDB, Redis, DynamoDB, Vector DBs (FAISS, ChromaDB)

Cloud & Containers: AWS (EC2, S3, Lambda, EKS, SQS), Docker, Kubernetes, Terraform, Helm

DevOps & Tools: Git, Jenkins, ArgoCD, Kafka, Linux/Unix, Ansible, Infrastructure as Code

Monitoring: Splunk, Zabbix, Prometheus, Cribl

AI/ML: PyTorch, TensorFlow, LangChain, LangGraph, RAG