Ankitha Suresh

github | linkedin | ankithasuresh.com | ankithasures@umass.edu | +14134720926

EDUCATION

University of Massachusetts, Amherst **05/2025**
Master of Science in Computer Science |**GPA: 3.92/4.0**
Coursework: Algorithms for Data Science, Software Engineering, Database Design and Implementation, Machine Learning

JSS Science and Technology University, Mysore, India **05/2021**
Bachelor of Computer Science and Engineering | **GPA: 9.34/10**
Coursework: DSA, Operating Systems, Computer Networks, NLP, Neural Networks, Web Technologies, Java and J2EE

SKILLS

Languages & Tools:	Python, C, Java, Golang, JavaScript, Bash, React, Next.js, Node.js, REST, GraphQL, gRPC, WebSocket, HTML, CSS, Bootstrap, PyTorch
Infrastructure & Databases:	AWS, Azure, Docker, Kubernetes, Ansible, Jenkins, GitLab CI/CD, MySQL, PostgreSQL, SAP (HANA), NoSQL, Apache Spark, Kafka, Grafana, Pytest, Postman

WORK EXPERIENCE

Headstarter, New York, USA
Software Engineer Fellow **07/2024 - 09/2024**

- Designed **CRM** integration **API endpoints** for Microsoft Dynamics 365, automating bidirectional sync of data across **6 modules** that processed **50000+** records monthly, reducing manual updates by **85%**.
- Built **3** full-stack applications in **React, Next.js, GraphQL**, and **WebSocket**, integrating **OpenAI**, enhancing user engagement and performance.
- Innovated a responsive pantry management system using **HTML, CSS, JavaScript, AWS CDK**, and **MySQL**, creating a load-balanced architecture with predictive analytics to track **1,000+** items, achieving **500 Mbps** throughput.

Hewlett Packard Enterprise, Bangalore, India
Software Engineer **09/2021 - 07/2023**

- Developed a **RESTAPI** in **Golang** for high-availability automation for **Oracle, SQL Server, and SAP**, reducing latency by **45%** at **10K RPS** while maintaining **99.9%** uptime SLA.
- Achieved **300%** faster cluster failover (**8s to 2s**) by revamping the I/O scheduler in **C** with lock-free queues, enhancing high-availability across **50+** production nodes.
- Automated hybrid cloud failover using **Ansible playbooks** integrated with **Jenkins and Gitlab CI/CD** pipelines, achieving **5x** faster recovery for mission-critical applications across **AWS** and **Azure**.
- Architected a **Python**-based dynamic quorum system that reduced cluster decision latency by **98% (850ms to 12ms)**, while eliminating **100%** split-brain scenarios.
- Spearheaded a cross-functional team of **8 engineers** to develop an automated disaster recovery system for **MySQL** with real-time data replication, achieving an **RTO of 20s** and an **RPO of 0s**.

Hewlett Packard Enterprise, Bangalore, India
Research and Development Engineer Intern **02/2021 - 08/2021**

- Delivered an automated installation framework using **Python**, streamlining software deployment, and reducing setup time by **90%**.
- Prototyped a **delta-encoded storage replication algorithm** for high-availability clusters, reducing cross-site WAN bandwidth usage by **35%**.
- Devised **Bash test suite** for system validation, improving defect detection by **60%** and catching **120** configuration errors pre-deployment.

PROJECTS

Real-Time Sentiment Analysis of US Election Posts [Git]

- Engineered a real-time sentiment analysis pipeline leveraging **Kafka, Apache Spark, and BERT**, handling **10,000+** posts and enabling dynamic visualization of sentiment trends.

Algocards - AI Flashcards generator for DSA [Git]

- Implemented an AI-powered flashcard generator in **Next.js and React**, generating **1000+** DSA flashcards, utilizing **SSR** and **SSG** to optimize performance, and supported real-time feedback and adaptive learning.

Buddy: Chatbot [Git]

- Programmed a high-performance chatbot in **JavaScript**, utilizing **OpenAI**, and **Pinecone**, achieving **93%** response accuracy with vector-based search and real-time communication features.