

# 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

<b>Languages &amp; Tools:</b>	Python, Java, C++, JavaScript, TypeScript, SQL, Bash, Ansible, GitHub Actions
<b>Technologies &amp; Databases:</b>	React, Springboot, Next.js, Node.js, REST, GraphQL, gRPC, Docker, CI/CD, Jenkins, Kubernetes, Azure, AWS, Postman, MySQL, PostgreSQL, NoSQL, HTML, CSS Bootstrap, Kafka, Grafana, Apache Spark, PyTorch, Pytest

## WORK EXPERIENCE

### Headstarter, New York, USA

#### Software Engineer Fellow

07/2024 - 09/2024

- Designed an **Azure-based REST API** for **Microsoft Dynamics 365 CRM** to automate data synchronization, which effectively reduced manual data entry errors by **89%** and improved workflow efficiency and accuracy.
- 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

- Automated **AWS** cloud infrastructure deployment using **Ansible, Terraform, Docker**, and **Kubernetes**, reducing release cycles by **75%** and enhancing high-availability cluster management through **CI/CD**.
- Achieved **85%** improved workload efficiency by revamping a legacy system with **Python** and optimizing **Kafka** with key-based partitioning and dynamic consumer scaling, decreasing processing time from **30 mins** to **4.5 mins** across **50+** nodes.
- Developed a **REST API** for high-availability automation for **Oracle, SQL Server**, and **SAP**, reducing latency by **45%** at **10K RPS** while maintaining **99.9%** uptime SLA.
- Architected a **Python-based** failover algorithm and dynamic quorum system for high-availability clusters, achieving **5x** faster recovery and eliminating **100%** of split-brain scenarios across clusters.
- 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 2 minutes** and an **RPO of 1 minute**.

### 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%**.
- Deployed real-time data replication through file-based configuration and **CDC(Change Data Capture)**, reducing replication lag to **1s** and ensuring instant data availability for customer portals post-failovers.
- Devised a resource allocation algorithm, increasing throughput by **25%** across **100+ nodes** in distributed systems.

## 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.