

Ankitha Suresh

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EDUCATION

University of Massachusetts, Amherst

Master of Science in Computer Science | GPA: 3.93/4.0

May 2025

JSS Science and Technology University, Mysore, India

Bachelor of Engineering in Computer Science | GPA: 9.34/10

May 2021

SKILLS

Programming: Python, Java, TypeScript, JavaScript, SQL, Bash

Frontend: React, Next.js, HTML/CSS

Backend & APIs: Node.js, FastAPI, Flask, gRPC, GraphQL, REST

AI/ML: LangChain, OpenAI API, Pinecone, RAG, Vector Databases

Databases: PostgreSQL, MongoDB, MySQL, Redis

Cloud & Infra: AWS (ECS, EC2, S3, Lambda, RDS), Docker, Kubernetes, Terraform, Git, GitHub Actions, GitLab CI/CD

Testing & Tooling: Pytest, Junit, Postman, Apache Kafka, CloudWatch

WORK EXPERIENCE

Headstarter, New York, USA

Software Engineer Resident (After Fellowship)

June 2024 – Dec 2025

- Architected a multi-stage RAG pipeline using LangChain and Pinecone that cut **query failure rate from 18% to 4%**, improving reliability across a 50K-document knowledge base serving **500+** daily users.
- Designed and shipped an AI code review assistant using React, node.js API, and OpenAI integration processing **1000+** pull requests with **78% developer acceptance rate** on suggested changes.
- Implemented end-to-end user authentication and onboarding flow in React, cutting account setup time from **4mins to under 90s**.
- Built a multi-step LLM agent using OpenAI tool-calling that autonomously triaged incoming support queries classifying intent, retrieving context, and drafting responses reducing manual triage time by **60%**.
- Optimized RAG query serving layer to reduce **p95** response latency from **3.2s to 800ms** by introducing async retrieval, result caching, and request batching while maintaining 99.5% uptime under peak load.

Hewlett Packard Enterprise, Bangalore, India

Software Engineer

Sept 2021 - July 2023

- Designed REST APIs exposing cluster management operations consumed by **2** internal HPE teams and integrated into the Serviceguard.
- Built a unified CLI tool for cluster operators covering health checks, controlled switchovers, configuration management, and live diagnostics replacing **4** separate ad-hoc scripts and **cutting average operator task time by 35%**.
- Developed cluster monitoring dashboard across **200+** clusters reducing time to identify degraded nodes from **45mins to under 2mins**.
- Engineered event-driven failure detection service that cut cluster recovering time by **98% (12mins to 14s)** by replacing a polling loop with a real-time health event pipeline, directly reducing customer-facing downtime.
- Rewrote disaster-recovery validation suite with concurrent execution across **50+** clusters, cutting runtime from **5h to 55mins** enabling the team to run daily validation checks previously limited to once a week.

Hewlett Packard Enterprise, Bangalore, India

Research and Development Engineer Intern

Feb 2021 - Aug 2021

- Built a Python and Ansible installation pipeline for Serviceguard that ran prerequisite checks, auto-remediated failing conditions, and complete product installation reducing customer deployment time from **1-2hrs to under 15mins**.
- Diagnosed and fixed a concurrency bug in the cluster validation pipeline that was silently inflating reported MTTR correcting recovery time metrics across **50+** clusters and reducing actual incident recovery from 25mins to 10mins.
- Contributed features to the core Serviceguard product codebase implementing health-check logic and configuration validation modules adopted by the QA team to replace **4h of manual cluster setup with 25mins automated run**.

PROJECTS

Kreede - Smart Court Booking System

- Built a full-stack court booking and customer management platform for a live pickleball business using React frontend, Node.js API, PostgreSQL handling real-time slot scheduling for **200+** users and eliminating manual booking entirely.

US Election Sentiment Analysis

- Developed a real-time sentiment analysis pipeline that ingested and classified live social media posts on 2024 US election processing a stream of **10000+** posts with NLP classification and surfacing results on a live dashboard.

Placement Management System

- Designed and launched a placement management platform used by students at JSS University with role-based access, application tracking, and recruiter dashboards actively used by **400+** students across placement season.