Ankitha Suresh

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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, Java, C++, JavaScript, TypeScript, SQL, Bash, Ansible, GitHub Actions
Technologies & Databases:	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, PyTorch, Pytest

WORK EXPERIENCE

Headstarter
Software Engineer Fellow — **07/2024 - 09/2024**

- Developed and integrated a **RESTful API** with Microsoft Dynamics 365 CRM using **Azure**, streamlining data synchronization, reducing manual data entry errors by **89%**, and significantly enhancing data accuracy and workflow efficiency.
- Built **3+** full-stack applications in **React and Next.js**, integrating **LLMs and event-driven architecture,** enhancing user engagement and application performance.
- Innovated a responsive pantry management system using **HTML, CSS, JavaScript, AWS CDK, and MySQL**, enabling efficient tracking of **1,000+** inventory items, and incorporated predictive analytics for real-time stock predictions, attained **500 Mbps** throughput via load balancing.

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

- Automated cloud infrastructure deployment on **AWS** using **Ansible playbooks, Docker, and Kubernetes**, reducing release cycles by **75%** and enhancing scalability through automated **CI/CD pipeline** for **high-availability cluster management**.
- Engineered a fault-tolerant system to migrate legacy array processes to **Kafka**, slashing downtime from **30 minutes to 4.5 minutes** and improving workload efficiency by **85%**.
- Accomplished successful development of a high-availability **cluster management API**, facilitating seamless automation of node failover. Integrated **RESTful APIs** with Serviceguard Manager, reducing manual intervention by **70%**, supporting **50+** nodes in production.
- Architected end-to-end infrastructure and application monitoring leveraging **Grafana and Elastic Stack (ELK)**, accelerating incident resolution time by **60%**.
- Spearheaded a team of interns to refine a resource allocation algorithm for **250+** nodes, introducing advanced optimization techniques and pioneered a **unit testing suite** to ensure system reliability.

Hewlett Packard Enterprise
Research and Development Engineer Intern — **02/2021 - 08/2021**

- Enhanced system reliability by establishing real-time database updates with **MySQL**, eliminating **90%** of manual data entry and ensuring timely, reliable data delivery to customers.
- Delivered a custom user interface simplifying manual maintenance tasks using **Ansible**, streamlining distributed system management and saving **25%** in operational costs.

PROJECTS

Algocards - AI Flashcards generator for DSA [Git]
- Implemented an AI-powered flashcard generator in **Next.js** and **React**, generating **1000+** DSA flashcards, integrated **Stripe API** for premium subscriptions and payments, and supported real-time feedback and adaptive learning.

Buddy: Chatbot [Git]
- Orchestrated a high-performance chatbot in Next.js and React, utilizing OpenAI for natural language processing and Pinecone for vector-based search, achieving a response accuracy of **93%**.

Crop Yield Prediction [Git]
- Constructed a predictive crop yield model harnessing **gradient boosting**, with an accuracy of **86.8%** on **1M+** records, modernized infrastructure with **AWS** and **Spark** for large-scale data processing, and delivered real-time insights to **500+** farmers, strengthening agricultural decision-making and productivity.