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, Python, C, JavaScript, TypeScript, SQL, Bash, Ansible, Git, Github, Jira

Technologies & Databases: React, Springboot, Flask, Next.js, Node.js, REST, GraphQL, gRPC, Docker, Kubernetes, CI/CD, Jenkins, AWS, Postman, MySQL, PostgreSQL, NoSQL, HTML, CSS, Bootstrap, Kafka, Grafana, PyTorch, Pytest

Work Experience

Headstarter

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

- Developed and merged a pull request for **API integration** with Microsoft Dynamics 365 Sales CRM, leveraging **RESTful services** to automate data synchronization, boosting data accuracy and optimizing workflow efficiency by reducing manual input by **40%**.
- Built **3+** full-stack applications using React, integrating **large language models (LLMs)** for AI-driven features, enhancing user engagement and application performance.
- Innovated scalable MySQL database on **EC2** for a pantry management system, managing **1000** inventory items with a master-replica setup. Integrated **predictive analytics** for real-time stock predictions, achieved **500 MBps** throughput via load balancing, and deployed using **Docker** for high availability and automated resource management.

Hewlett Packard Enterprise, Bangalore, India

Software Development Engineer **09/2021 - 07/2023**

- Designed and deployed scalable cloud applications on **AWS**, leveraging **Docker and Kubernetes** for container orchestration, reducing deployment time by **30%** and improving system scalability.
- Engineered a fault-tolerant system to migrate legacy array processes to a **Kafka** Framework, improving workload efficiency by **85%** by reducing downtime from **30 minutes to 4.5 minutes** during critical failures for HPE Serviceguard environments.
- Architected end-to-end infrastructure and application monitoring using **Grafana and Elastic Stack (ELK)**, improving incident resolution time by **60%**.
- Implemented **CI/CD** pipelines for HPE Serviceguard, reducing release cycles by **40%**, eliminating **3000+** redundant lines of code, and enhancing maintainability. Automated workflows supported high availability and scalability for systems serving **1M+** users, improving deployment reliability and reducing manual intervention.
- **Led interns** in optimizing a resource allocation algorithm for **250+** nodes, improving fault tolerance and workload distribution, and enabled a unit testing suite to ensure reliability.

Hewlett Packard Enterprise

Research and Development Engineer Intern **02/2021 - 08/2021**

- Enhanced system reliability by integrating real-time database updates using **MySQL**, reducing manual data entry by **90%** and ensuring timely, reliable data delivery to customers.
- Delivered a custom user interface that automated manual maintenance tasks using **Ansible**, streamlining **distributed system management**, reducing operational costs by **25%**.

Projects

Algocards - AI Flashcards generator for DSA [Git]

- Implemented an AI-powered flashcard generator using **Next.js** and **React**, automating **1000+** DSA flashcards with a remarkable data throughput of **500 Mbps**, enabling real-time feedback, adaptive learning, and seamless Firebase synchronization for personalized user experiences.

Buddy: Chatbot [Git]

- Built a high-performance chatbot using Next.js and React, integrating 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 using **gradient boosting**, achieving **86.8%** accuracy on **1M+** records, optimized infrastructure with **AWS** and **Spark** for large-scale data processing, and delivered real-time insights to **500+** farmers, enhancing agricultural decision-making and productivity.

Certifications

- AWS Certified Cloud Practitioner
- MySQL 8.o Database Developer Professional