Ankitha Suresh

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

Education

University of Massachusetts, Amherst **Expected Graduation - 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: 3.74/4.0**

Coursework: DSA, Operating Systems, Computer Networks, NLP, Neural Networks, Web Technologies, Java and J2EE

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+** AI-engineered, full-stack applications leveraging large language models (**LLMs**), utilizing a diverse technology stack to create scalable solutions that significantly enhanced user engagement and application performance.
- Innovated a **predictive analytics engine** for a pantry management system using Python and PostgreSQL, leveraging Docker for containerization and implementing advanced data modeling techniques to optimize inventory tracking and automate resource management.

Hewlett Packard Enterprise, Bangalore, India
Software 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 modern frameworks, improving workload recovery efficiency by **72%** and minimizing downtime for rapid recovery during critical failures.
- Architected end-to-end monitoring systems using **Grafana and Elastic Stack (ELK)**, reducing system downtime by **85%** and minimizing manual interventions.
- Developed a custom Command Line Interface (CLI) to replace traditional SSH processes, increasing operational efficiency and reducing manual overhead.
- Automated cloud infrastructure management by incorporating **infrastructure-as-code (IaC)** principles, and implemented unit tests with Python's **unittest** framework to ensure reliability, scalability, and resilience of the system.

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

- Enhanced system reliability by integrating real-time database updates, reducing manual data entry by **90%** and ensuring timely, reliable data delivery to customers while significantly improving overall operational efficiency.
- Created a secure vault management automation solution, leveraging security best practices to reduce password recovery requests, enhance **data security**, and streamline operations.
- Delivered a custom user interface automating **70%** of manual maintenance tasks, leveraging Ansible for automation and Python for back-end services, streamlining distributed system management and boosting productivity across nodes.

Projects

Algocards - AI Flashcards generator for DSA **07/2024 - 08/2024**

- Implemented an AI-driven flashcard generator using Next.js and React, automatically generating over **150+** flashcards across various DSA topics such as algorithms and data structures to aid learning and revision.
- Incorporated a real-time feedback system tool allowing users to receive instant feedback during study sessions; improved retention rates and overall engagement through personalized adjustments in flashcard challenges.

Buddy: Chatbot **06/2024 - 07/2024**

- 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%**.
- Integrated user authentication and feedback mechanisms to improve security and user engagement.

Crop Yield Prediction **11/2020 - 03/2021**

- Generated a predictive model using advanced algorithms like **gradient boosting**, achieving **86.8%** accuracy in crop yield prediction, with infrastructure optimized for large-scale data processing in Python.

Car Make and Model Classification **08/2020 - 11/2020**

- Designed a highly efficient machine learning model using CNNs to analyze car images, implementing the **Inception-v3** model to achieve **92%** precision in predicting car make and model for an automotive image recognition system.

Skills

Programming:	Java, Python, Javascript, Typescript, PHP, SQL, Bash
DBMS:	MySQL, NoSQL, PostgreSQL
Web Development:	React, Node.js, Next.js, Bootstrap, HTML, CSS, REST API, GraphQL, gRPC
Machine Learning:	Pandas, LLMs, OpenAI, Keras, Numpy, Scikit-learn, MATLAB
DevOps:	Docker, Kubernetes, CI/CD, Ansible, Git, VSCode
Cloud:	AWS, GCP