Ankitha Suresh

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Education

University of Massachusetts, Amherst **Expected Graduation - 05/2025**
Master of Science in Computer Science |**GPA: 3.88/4.0**
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
SWE 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 by 30% 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**
- Spearheaded the design and deployment of custom automation scripts, integrating cloud infrastructure and optimizing resource management. Achieved an 80% reduction in deployment time and significantly improved system scalability.
- Engineered a robust fault-tolerant system that successfully transitioned legacy array-based processes into modern system-based frameworks, significantly enhancing workload recovery efficiency by 92% during critical failure scenarios. This transformation not only improved the system's resilience but also minimized downtime and ensured business continuity by allowing rapid recovery from unexpected disruptions.
- Architected custom monitoring solutions, automating critical system checks and improving operational control for distributed systems, reducing system outages and manual interventions by 85%.
- Optimized system monitoring by creating a customized Customer Line Interface, replacing SSH-based processes and enabling more direct interaction with system components. Enhanced operational efficiency and control, minimizing manual overhead.
- Automated cloud infrastructure management using Python and Bash, incorporating infrastructure-as-code (IaC) principles. This reduced testing and setup times by 60%, while enhancing system scalability, resilience, and fault tolerance across platforms like AWS and Azure.

Hewlett Packard Enterprise
Research and Development Engineer Intern **02/2021 - 08/2021**
- Engineered an automated support platform, integrating real-time database updates to ensure the accuracy and timeliness of data. Reduced manual data entry by 90%, enhancing operational efficiency and improving customer information delivery.
- Created and deployed a secure automation solution for vault management, leveraging best practices in security protocols. Reduced password recovery requests while enhancing data security and streamlining overall operations.
- Delivered a custom user interface, automating 70% of manual maintenance tasks and streamlining the management of distributed systems, resulting in increased productivity and seamless operations 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.js, Node.js, Next.js, 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