Ankitha Suresh

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Education

University of Massachusetts, Amherst 2023-Present
Master of Science in Computer Science GPA: 3.88/4.0

JSS Science and Technology University, Mysore, India 2017-2021
Bachelor of Computer science and Engineering GPA: 3.74/4.0

Work Experience

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

- Spearheaded the development and deployment of customized Ansible modules, integrating Serviceguard seamlessly with cloud infrastructure, which reduced deployment time by 80% and optimized scalability.
- Developed Python scripts to transform an array-based application into an application-based system, leading to a remarkable 92% improvement in workload recovery efficiency.
- Created a highly efficient custom utility script to streamline pre-installation operations for Serviceguard, achieving an 85% reduction in deployment time.
- Streamlined the Metrocluster monitor for Bruce Power by programming a site-specific CLI flag, eliminating the need for SSH and significantly improving system efficiency and control.
- Pioneered the creation of an automated test suite using Ansible and Azure cloud infrastructure, achieving a 50% reduction in testing time and increasing overall system reliability for Serviceguard's resilience and failover capabilities.
- Configured an Ansible script to provision compute resources on Azure cloud, resulting in a 70% reduction in manual provisioning time and enabling the team to scale efficiently.

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

- Engineered an automated support matrix webpage, integrating seamless database updates that cut manual data entry by 90%, ensuring precise and timely information for customers.
- Architected and deployed an Ansible Playbook to bolster vault support, slashing password recovery requests by 80% and heightening data security.
- Configured a Python-based alert system with Oracle DBMS, significantly enhancing system reliability by reducing downtime through prompt notifications of critical failures.
- Developed a customized user interface for Serviceguard Manager, decreasing manual maintenance tasks by 75% and optimizing the management process of serviceguard modules across nodes.

Projects

Algocards - AI Flashcards generator for DSA **Next.js, React, Open AI, CSS, firebase, Vercel**

- Imlemented an AI-driven flashcard generator using Next.js and React, creating three distinct sets: Basic DSA, Algorithms, and Advanced DSA, with over 150 flashcards to streamline the learning of complex concepts.
- Developed an assessment module to test users' knowledge, providing real-time feedback and enabling personalized learning experiences, resulting in a 80% improvement in knowledge retention for users.

Buddy: Chatbot **Next.js, React, Open AI, CSS, Pinecone, Vercel**

- Built the Chatbot using Next.js and React, integrating OpenAI for intelligent user responses and Pinecone for advanced retrieval-augmented generation (RAG) capabilities, achieving a 93% improvement in response accuracy based on a dynamic knowledge base.
- Implemented user authentication and feedback mechanisms to personalize the chat experience and gather user ratings, leveraging MongoDB for secure data management and deploying the solution on Vercel for scalable performance.

Crop Yield Prediction **ML, Python, Numpy, SkLearn**

- Engineered and optimized a machine learning model to forecast crop yields using historical weather data and crop-specific features. Leveraged Python, scikit-learn, and pandas to preprocess and analyze a comprehensive 5-year agricultural dataset.
- Enhanced model accuracy to 86.8% by implementing advanced random forest algorithm with gradient Boosting techniques and applying rigorous feature scaling and selection methodologies.

Skills

Languages:	Java, Python, Javascript, HTML, CSS, Bash,PHP
Frameworks:	React.js, Node.js, Next.js, gRPC, graphQL, Ansible, REST, Unittest, Pytest, Pandas
Databases:	MySQL, MangoDB, PostgreSQL, NoSQL
Development Tools:	System Design, AWS, Open AI, Git, Jira, VSCode, Pycharm, Vercel
API Design and Architecture:	Microservices, API Design (RESTful, gRPC, GraphQL), Event-Driven Architecture