Asritha Reddy Gade

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EDUCATION

University of Massachusetts Amherst | *Master's in Computer Science*   Feb 2023 – Dec 2024
(courses: Distributed and Operating Systems, Machine Learning, Database Design,   GPA: 3.91/4
Software Engineering, Applied Information Retrieval, Algorithms for Data Science, Statistics for Business)
National Institute of Technology, AP | *Bachelor of Technology in Computer Science*   Aug 2018 – May 2022
(courses: Algorithms and Data Structures, Network Security, Artificial Intelligence, Linux)   GPA: 8.18/10

SKILLS

Programming Languages: Python, Java, JavaScript, PHP, Kotlin, HTML, CSS, C++
Frameworks & Tools: React.js, Express.js, Flask, Django, Docker, gRPC, GIT, GitHub
CICD, Testing & Cloud: AWS Cloud Services, Kubernetes, Agile Methologies, Postman, Pytest, Selenium
Databases: SQL, MySQL, PostgreSQL, MangoDB, Google Firestore
AI Tools: Hugging Face Transformers, OpenAI APIs, Gemini AI, TensorFlow, PyTorch

WORK EXPERIENCE

Deloitte | *Software Engineering Analyst*   Sep 2022 – Jan 2023

- Built responsive web applications, improving user experience across devices and contributing to a 20% increase in engagement.
- Designed REST APIs, reducing server response times by 25% and improving frontend and backend communication efficiency.
- Mentored a team member, enhancing their technical skills and boosting productivity through hands-on guidance and support.

Technologies: React.js, Express.js, Node.js, RESTful APIs, MangoDB, Git

Amazon Web Services | *Solutions Architect*   Jan 2022 – Jul 2022

- Strengthened the cloud security posture of startup Fin-Tech clients by completing a 12-module workshop titled "Securing the Fin-Tech Workloads" using AWS Workshop Studio, equipping them with tailored strategies to safeguard applications.
- Successfully deployed and hosted web applications on AWS, enhancing application performance, scalability, and cost-efficiency.
- Collaborated with client teams during shadow calls to diagnose and resolve complex technical issues, achieving a 20% reduction in resolution time, improving system reliability, and boosting overall client satisfaction.
- Earned the AWS Certified Solutions Architect – Associate certification, demonstrating advanced proficiency in designing secure, scalable, and cost-optimized AWS solutions to address diverse client needs effectively.

Technologies: AWS S3, AWS EC2, AWS Lambda, AWS Workshop Studio, PHP, HTML, CSS, Bootstrap, JavaScript

Smarkt | *Software Developer*   Jul 2021 – Sep 2021

- Developed scalable RESTful APIs, enabling seamless data integration and robust backend functionality for dynamic applications.
- Optimized database performance by redesigning data models, restructuring queries, and implementing indexing strategies, reducing response times by 20% and significantly improving application efficiency and user satisfaction.
- Conducted comprehensive API testing using Postman and ensured code quality with automated Pytest scripts, enhancing test coverage and reducing production bugs by 15%, resulting in improved system stability and faster deployments.

Technologies: Python, Flask, PostgreSQL, Postman, Pytest,Git, Github, REST APIs, CI/CD, JSON

PROJECTS

Machine Learning Capstone Project (github) | *Python (scikit-learn, pandas, numpy, matplotlib)*

- Implemented and analyzed k-NN and multinomial Naive Bayes, decision trees, and random forests on multiple datasets.
- Used data sets such as wine, loan, voting and breast cancer data sets (1M+ records) utilizing bootstrapping and stratified cross-validation techniques.

AI Coding Tutor (github) | *React.js, Express.js, MangoDB, GeminiAI*

- Developed a MERN stack-powered AI-driven coding tutor that provides personalized learning experiences by adapting to user history, interests, and expertise.
- Designed and implemented key features like a versatile curriculum and session history tracking, leveraging Gemini AI to deliver intuitive responses and tailored user interactions.

EleNa - Elevation based Navigation System (github) | *React.js, Java, Spring Boot, Google API, Junit*

- Designed and developed a web application for runners, cyclists, and hikers to optimize routes based on distance and elevation gain or loss (up to 20%), offering tailored paths for activities ranging from easy strolls to intense workouts.
- Integrated Google APIs to generate 3+ real-time path options with elevation data, tailored to user preferences.

Stock Trading Application | *Python, Docker, gRPC, RESTful APIs*

- As part of the course "Distributed and Operating Systems", built a stock trading platform with gRPC based microservices architecture, reducing response times by 30% through optimized protocols and fault-tolerant mechanisms.
- Utilized Docker for seamless deployment and scaling, while integrating real-time socket programming to support up to 100 concurrent clients, ensuring production-grade scalability and performance.

CERTIFICATIONS AND ACHIEVEMENTS

- AWS Certified Solutions Architect - Associate (link)
- Finalist in the MARVEL-AI Hackathon themed on AI innovation, developed a AI-powered coding tutor.