Sagar Gupta

Education

National Institute of Technology Warangal, Telangana

Master of Computer Application (MCA)

August 2021 - June 2024 8.38 CGPA

Experience

Amazon Web Services

August 2024 - Present
Professional Services

Hyderabad, India

Project: DevOps Infrastructure Automation - State Street

- Developed and maintained reusable Terraform modules for critical AWS services including EventBridge, CloudWatch, SNS,
 EBS, and AWS Detective, ensuring standardized infrastructure deployment
- Implemented comprehensive unit testing framework using tftest to validate Terraform modules, ensuring infrastructure reliability.
- Designed and delivered technical specifications and user guides aligned with enterprise security hardening guidelines.
- Collaborated closely with stakeholders to gather requirements and ensure delivery of infrastructure solutions meeting business needs

Technologies: AWS (EventBridge, CloudWatch, SNS, EBS, Detective), Terraform, tftest.

Project: Medical Image Classification MLOps Pipeline

- ♦ Developed a complete MLOps pipeline on AWS SageMaker, automating the entire ML lifecycle from data processing and multi-model training to an ensemble model, with retraining triggered by new data uploads.
- Implemented production-ready SageMaker endpoints with blue-green deployment, auto-scaling, and real-time monitoring for drift detection, providing zero-downtime model updates and automatic rollback capabilities.
- ♦ Utilized Terraform for infrastructure provisioning and built CI/CD pipelines using AWS CodePipeline and CodeBuild to deploy the entire system, including a CloudFront front-end and a scalable API Gateway + Lambda inference API.

Technologies: AWS (SageMaker, CloudWatch, Lambda, API Gateway, EventBridge, Codepipeline, Cloudfront), Terraform, Python.

Amazon Web Services

Associate Professional Services, Internship

March 2024 - July 2024 Hyderabad, India

Certificate

Project: ECS Application Deployment with Terraform

- ♦ Led migration of on-premises web application to AWS ECS, implementing high-availability architecture and CI/CD pipeline using AWS CodePipeline, reducing maintenance overhead.
- Architected infrastructure as code using Terraform, managing AWS resources including VPC, ALB, and ECS clusters while implementing blue-green deployment strategy for zero-downtime updates.
- ♦ Automated Docker image building and deployment process through integration of AWS CodeBuild, CodeDeploy, and Amazon ECR, streamlining application delivery workflow.
- ♦ Established comprehensive monitoring solution using AWS X-Ray and CloudWatch for distributed tracing and full observability of application performance.

Technologies: AWS (ECS, CodePipeline, ECR, X-Ray, CloudWatch), Terraform, Docker, Git

Ikarus-3DMay 2023 - July 2023Software Developer Associate, InternshipMohali, India

Project: Web Application Containerization and Deployment

- ♦ Led containerization of application with Docker and orchestrated deployment to AWS using ECR and ECS services.
- ♦ Implemented comprehensive CI/CD pipeline using GitHub Actions, automating build, test, and deployment processes.
- Standardized codebase with linting tools and deployed SonarQube on AWS EC2 with RDS integration for code analysis.

Technologies: AWS (EC2, ECR, ECS, RDS), Docker, GitHub Actions, SonarQube, Python, JavaScript.

Industry Certifications

• AWS Certified Cloud Practitioner Certificate

AWS Certified AI Practitioner
 AWS Certified Solutions Architect - Associate

AWS Certified Solutions Architect - Associate
 AWS Certified Machine Learning Engineer - Associate
 Certificate
 Certificate

• HashiCorp Certified: Terraform Associate Certificate

Personal Projects

Placemento: Implemented a secure and scalable MERN-stack MCA Placement Portal with robust security, role-

based access, and interactive data visualization using AG Grid and AG Charts.

Contact Manager: Engineered a full-stack MERN application to streamline contact management with complete

user authentication and CRUD operations, featuring a user-friendly UI with dark/light modes.

Personal Portfolio: Crafted an interactive portfolio website showcasing my skills and achievements, optimized for

multiple devices, with a smooth refresh-free navigation.

Technical Skills and Interests

Languages & Frameworks: C++, Python, Java, JavaScript, SQL, React, Express.js, Fast-API, Rest-API

Cloud & DevOps: AWS (EC2, ECS, CloudWatch, SageMaker, CodePipeline, EventBridge, etc.), Terraform, Docker, Ansible.

Developer Tools: Git, GitHub Actions, MongoDB, MySQL, SonarQube, Unity Engine

Soft Skills: Leadership, Teamwork, Communication, Critical Thinking.

Coursework: Cloud Computing, DSA, Database, Game Development, Web Technologies, Image Processing **Areas of Interest**: Full-Stack Development, DevOps, MLOps, Cloud Computing, Data Science, Game Development.