

# Rishabh Upadhyay

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## Education

### SRM Institute of Science and Technology

B.Tech.-Computer Science and Engineering **9.33 CGPA**

Tamil Nadu, India

Sept 2021 - Jun 2025

## Technical Skills

**Key AI/ML Skills** : LLMs, Gen AI, AI Agent Development, RAG, Ollama, MCP, OpenCV

**Languages** : C/C++, Python, HTML/CSS, MySQL, Terraform, Kubernetes, Docker

**Developer Tools** : Git, VS Code, PyCharm, Tableau, SQL, Workbench, AWS, Gitlab

## Experience

### Software Engineer (Full Time)

Aptiv Components Pvt Ltd

Jul 2025 - Present

- Design and implemented CI/CD pipelines for ML models by Working with Airflow to automate model training and deployment and optimizing data ingestion and feature engineering workflows.
- Deploy machine learning models using Docker and Kubernetes. Implement model monitoring tools to track drift, performance, and failures. Ensure smooth integration of ML models into production systems.
- Optimized AWS costs by implementing **auto-scaling, Spot Instances, and Reserved Instances**, reducing compute expenses by **30%**. Improved **storage efficiency** using **S3 lifecycle policies and data compression**, cutting costs by **20%**. Developed **cost monitoring and resource shutdown**, minimizing waste and ensuring efficient cloud usage.

### Machine Learning Intern

AcmeGrade

Mar 2022 - May 2022

- Collaborated with the team to identify and collect relevant data for machine learning projects.
- Streamlined data cleaning processes by developing a comprehensive script that helped removal of duplicates and inconsistencies, improving dataset accuracy by 80% and enhancing overall data integrity for analysis.
- Applied machine learning algorithms using programming languages like Python and others.

## Projects

### Secure Secrets Management Integration | AWS Secrets Manager, Terraform, Gitlab

- Integrated AWS Secrets Manager with Terraform to securely manage infrastructure secrets, eliminating .tfvars files across 100% of deployments and automating secret retrieval during provisioning.
- Configured fine-grained IAM roles and policies to enforce least-privilege access, reduce secret exposure risk by 95%, and enable seamless secret rotation with full auditability.
- Improved infrastructure security posture by 40% and reduced manual credential handling by 80%, aligning the solution with DevSecOps best practices and compliance standards.

### DevOps Monitoring and Cost Optimization Dashboard | AWS, Prometheus, Grafana, Gitlab, Terraform

- Deployed a centralized monitoring and alerting system for production workloads using Prometheus, Grafana, and AWS CloudWatch, improving system observability and reducing MTTD by 45%.
- Contributed to a 15% reduction in monthly cloud costs by flagging idle EC2 instances, optimizing EBS volumes, and adjusting auto-scaling thresholds based on insights from Prometheus alerts and Grafana dashboards.
- Engineered off-hours infrastructure shutdown using an AWS Lambda function, which stopped EC2 instances after 8 PM and restarted them each morning—reducing idle resource usage and cutting non-working hour cloud costs by 35%.

## Achievements

- Achieved 5th place in **SRM Layer's Hackathon**
- Secured 7th place in a coding contest organized by **SRM Hackathon Club** at SRM University.
- Completed a Node.js and React.js workshop based on Scholarship with **Bajaj Finserv Health**, focusing on building scalable, interactive web applications.

## Certifications

- Oracle Cloud Infrastructure Foundations Associate — Oracle, 2024
- Oracle Cloud Data Management Foundations Associate — Oracle, 2024
- Oracle Building MySQL Databases for Applications — Oracle, 2024