

# Debopriyo Roy

Cloud Platform Engineer | AWS • Terraform • Python/Java • Secure Distributed Systems

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## About Me

Cloud Platform Engineer with 3+ years of hands-on experience designing, automating, and operating secure AWS-based systems using Terraform, CI/CD pipelines, and containerized workloads. I specialize in building reliable, observable cloud platforms that enable teams to ship faster with confidence. With a background spanning infrastructure automation and enterprise-facing technical roles, I excel at translating complex technical problems into clear, maintainable solutions and thrive in collaborative environments where scalability, security, and operational excellence matter.

## Education

<b>West Bengal University of Technology</b> Bachelor's In Electronics & Communication Engineering. Cumulative Average: 75.2%	West Bengal, India May 2012-May2016
<b>Calcutta University</b> (ALL INDIA GATE RANK: 583) Master's In Technology in VLSI Design and Embedded System (Drop-out)	West Bengal, India Sept 2021- Dec 2022
<b>Memorial university Of Newfoundland</b> Master's In Applied Science (Masc.): Computer Engineering. Cumulative Average: 76.2%	St John's, NL Jan 2023-Sept 2024

## Work Experience

### Software Engineer (Volunteer) | Centre for Analytics, Informatics and Research (CAIR) @ MUN.

St John's, NL | July 2025 – Present

Talent Opportunity Hub:

- Built and deployed an AI-powered job-matching platform serving students and employers, improving onboarding efficiency through automated workflows
- Designed multi-step onboarding with verification and admin approvals, reducing manual review effort by almost ~80% and improving data integrity.
- Implemented CI/CD pipelines with Docker/Podman and GitHub Actions, enabling consistent, repeatable deployments.
- Collaborated cross-functionally with academic stakeholders to translate requirements into production-ready cloud services.

### Co-Owner | Multi-sector Family Business

West Bengal, India | 2011-Present

- Co-owner and primary decision-maker in a decade-old, high-volume family business serving **1,000+ daily customers** across gas stations, hotels, and heavy vehicle operations. Developed strong business acumen and cultivated advanced communication and customer-facing skills through hands-on business involvement beginning at age 19.
- Gained the ability to stay calm under pressure, resolve issues quickly, and ensure customers felt supported. Worked my way up through the business, from assisting with daily workflows and coordination to overseeing operations, before moving to Canada to pursue my master's degree.
- Remain actively involved in strategy, growth planning, and key operational decisions while co-owners oversee day-to-day operations.

### Customer Service Associate: Front Desk Staff | Loblaw's Inc.

St John's, NL | January, 2023 – Present

- Served as the initial point of contact for over **100 daily customers**, clearly communicating services and answering questions while identifying needs and resolving concerns
- Handled objections and escalations professionally, using active listening and empathy to provide a pleasant customer experience to a varied audience.
- Managed front-desk activities, such as scheduling, check-ins, and visitor logs, to ensure correct documentation and efficient workflow execution.
- Collaborate with leadership to address problems while maintaining high performance in a fast paced workplace with agility and multitasking.

### ASIC Design Engineer | Technical & Client-Facing Liaison | EMSIG Technologies Pvt Ltd.

Mumbai, India | Aug 2016-Dec 2019

- Partnered with defense and biomedical clients to translate complex technical requirements into clear system specifications and delivery plans.
- Supported pre-sales and solution design by producing technical documentation, solution briefs, and client-facing demos.
- Acted as a bridge between engineering teams and stakeholders, improving delivery clarity and long-term client engagement.

## Skills

Cloud Platforms	AWS(EC2,ECS,EKS,ELB,Lambda,RDS,S3,CloudFront,IAM,CloudWatch,EventBridge,CloudFormation,SES,SNS),Auto-Scaling.
Automation & Unix	Terraform, Ansible,Docker, Kubernetes, DevContainer, CI/CD (GitHub Actions, Jenkins, CodePipeline, CodeBuild),Linux.
Database Administration	Postgres SQL,DynamoDb, Glue, Athena, SQLite, , Redshift Spectrum,ETL pipelines,Data Ingestion, Data Normalization
Programming languages	Python, Java, SQL, Bash/Shell Scripting, REST APIs, YAML, JSON.
Monitoring, Observability & Security	AWS X-Ray, Cloudwatch metrics & Logs, Prometheus, Grafana.
Web Frameworks & Backend	Spring Boot, Django, HTMX, Bootstrap 5, JavaScript.
Machine learning platforms	Amazon SageMaker, SageMaker Pipelines, PyTorch, TensorFlow, XGBoost, Model training, deployment& ML workflow automation.
Distributed System & Security	Scalable system design, Fault tolerance, IAM least privilege, Secure Cloud Architectures.

## Projects

### 1. AWS Infrastructure Automation with Terraform CLI & Terraform Cloud.

**Description:** Reduced environment provisioning time by ~70% using reusable Terraform modules and remote state management.

**Tools Used:** AWS (VPC, EC2, S3, IAM, Lambda, Glue, CloudWatch), Terraform CLI & Terraform Cloud, IaC, Sentinel (Policy as Code), Remote State (S3 + DynamoDB), CI/CD Automation.

### 2. End-to-End Enterprise DevOps CI/CD Pipeline on AWS.

**Description:** Automated build-to-deploy workflows for containerized microservices architecture, improving deployment reliability and consistency across environments.

**Tools Used:** AWS (ECS, EC2, ECR, S3, IAM, CloudWatch), Jenkins, Git/GitHub, Docker, Terraform (IaC), SonarQube, Maven.

### 3. End-to-End CI/CD Platform Automation.

**Description:** Built a production-ready AWS CI/CD platform for microservices architecture using Terraform, Jenkins, Docker, and Amazon EKS, reducing manual deployment effort by ~80% through end-to-end automation and monitoring.

**Tools used:** AWS, Terraform (IaC), Jenkins, Docker, Elastic Kubernetes Services (EKS), SonarQube, Prometheus, Grafana, CI/CD pipelines, automated builds & deployments, email notifications.

### 4. Event-Driven AWS Serverless ETL Pipeline.

**Description:** Enabled scalable, event-driven data ingestion with zero server management, supporting high-volume JSON processing at low cost.

**Tools used:** AWS S3, AWS Lambda, AWS Glue (Crawlers), Amazon Athena, Amazon CloudWatch, Parquet, JSON.

## Certifications

[AWS Certified Solutions Architect – Associate](#). | [HashiCorp Certified: Terraform Associate \(003\)](#).

[Terraform Associate \(003\) — HashiCorp Certification,Udemy](#) | [AWS Machine Learning Engineer Associate, Udemy](#)