AYUSH PATEL

Cloud Computing Student • AWS • Terraform • Kubernetes • Serverless • Linux

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PROFILE

Cloud Computing student at Seneca Polytechnic with a Cybersecurity Analysis certificate and a BCA degree. Independently built production-grade AWS infrastructure spanning serverless APIs, container orchestration, multi-environment IaC, and full-stack e-commerce platforms using Terraform, Kubernetes, Docker, Python, and Bash. Security-first mindset, strong documentation habits, and a track record of shipping real, working systems from scratch.

EDUCATION

Seneca Polytechnic — Advanced Diploma, Cloud Computing — *Toronto, ON | Jan 2026 – Present*

Algonquin College — Certificate, Cybersecurity Analysis — *Ottawa, ON | Jan 2025 – Aug 2025*

CVM University — Bachelor of Computer Applications (BCA) — *Anand, India | 2021 – 2024*

PROJECTS

SOLE E-Commerce Platform — Full-Stack Serverless [repo] — *2026 • Individual*

Technologies: Terraform, AWS Lambda (7 fns), API Gateway, DynamoDB, S3, CloudFront, Cognito, SES, SNS, CloudWatch, React, GitHub Actions, Stripe, SonarQube

- Designed and provisioned the entire backend infrastructure using Terraform with modular architecture: 2 S3 buckets, CloudFront CDN distribution, 2 DynamoDB tables, Cognito user pool with admin group, 7 Lambda functions (getProducts, placeOrder, stripeWebhook, manageCart, adminCRUD, and more), REST API Gateway deployed to prod, SES for email, SNS for order notifications, and CloudWatch alarms.
- Integrated Stripe payment processing via webhook — Lambda validates stripe signatures, processes checkout events, and triggers SNS order notifications and SES confirmation emails automatically on successful payment.
- Deployed React frontend to S3 with CloudFront CDN via GitHub Actions CI/CD pipeline; environment config (API URLs, Cognito IDs) injected from Terraform outputs, keeping zero hardcoded values.

Kubernetes MySQL Backup & Restore — kind Cluster [repo] — *2026 • Individual*

Technologies: Kubernetes (kind), MySQL, Docker, PersistentVolumeClaims, CronJob, ConfigMap, Secrets, Bash

- Deployed MySQL in a kind Kubernetes cluster (1 control-plane + 1 worker) with a PVC for persistent storage; wrote Kubernetes manifests for Deployment, Service, Secrets, ConfigMap seed job, and helper pods.
- Built a CronJob that automatically backs up the MySQL database every 5 minutes to a separate PVC, capping retention at the last 7 backups; implemented a parameterized restore Job to recover from any saved backup.
- Wrote a full bootstrap.sh script that rebuilds the entire cluster from scratch on a clean host in ~80 seconds, plus a runbook.md covering every operational procedure.

AWS Serverless News Pipeline — Lambda + EventBridge [repo] — *2026 • Individual*

Technologies: Python 3.10, AWS Lambda, S3, EventBridge, CloudWatch, IAM

- Serverless pipeline fetching news from external API hourly via EventBridge; stores timestamped JSON in S3 by topic. Built-in fault injection (1 in 3 calls hit invalid endpoint) validates exception handling and graceful degradation.

AWS Two-Tier Web App — Terraform (Group) [repo] — *2026 • Group • 5 members*

Technologies: Terraform, AWS (EC2, VPC, ALB, ASG, S3, IAM, CloudWatch, NAT Gateway), GitHub Actions

- Team-built production-grade infrastructure across 3 environments (Dev/Staging/Prod) with reusable Terraform network modules; TFLint + Trivy security scanning automated via GitHub Actions on every staging push and prod PR.

AWS Two-Tier Web App — Terraform (Individual) [repo] — *2026 • Individual*

Technologies: Terraform, AWS (EC2, VPC, ALB, ASG, S3, IAM, CloudWatch, NAT Gateway), Bash, GitHub Actions

- Independently deployed highly available infrastructure across 3 environments with 5-stage CI/CD pipeline (fmt, validate, TFLint, Trivy, plan/apply); isolated S3 remote state per environment.

AWS EC2 Web Server Deployment [repo] — *2026 • Individual*

Technologies: AWS CLI, EC2, Apache, Amazon Linux 2023, Bash, RSA Key Management, Security Groups

- Provisioned and secured a Linux server end-to-end via AWS CLI and Cloud9 IDE; RSA key pair (chmod 600), SSH restricted to single IP, automated setup via Bash script.

SKILLS

Cloud & AWS: Lambda, EC2, VPC, S3, CloudFront, DynamoDB, Cognito, API Gateway, IAM, CloudWatch, EventBridge, ALB, ASG, SES, SNS, AWS CLI

IaC, Containers & DevOps: Terraform (HCL), Kubernetes (kind), Docker, GitHub Actions (CI/CD), TFLint, Trivy, SonarQube, Git

Languages, Security & Spoken: Python, Bash, HCL, SQL, React • Nmap, Wireshark, Metasploit, SSH key auth, TCP/IP • English, Hindi, Gujarati