

Muhammad Ali Nadeem

Cloud & DevOps Engineer

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Projects

EasyIntern: Internship Matching Platform

easyintern.ca · github.com/Nadee108/easyintern2 · Jul 2024 – Present

AWS (Lambda, API Gateway, ECS Fargate, RDS, Cognito, EventBridge), Terraform, GitHub Actions, Docker, FastAPI, Next.js, PostgreSQL

- Built a live internship-matching site and run it on AWS: a Next.js frontend, a FastAPI backend on Lambda container images, and a daily ingestion job on ECS Fargate, at **\$0/month** idle cost on the free tier
- Defined all infrastructure in Terraform (**114 resources**, 6 modules, S3 remote state); after a CORS bug, added a Terraform check that blocks the same mistake before deploy
- Gated every merge on 10 automated GitHub Actions jobs, including tests, E2E, container builds, secret scanning, and terraform plan with Checkov and tfint; AWS access runs through OIDC with no stored keys
- Secured sign-in with Cognito (PKCE) and an API Gateway JWT authorizer, and the database with RDS IAM authentication over TLS instead of passwords, with separate read-only and write roles

CloudGuard: Automated AWS Security Remediation

github.com/Nadee108/cloudguard · Aug 2026 – Present

AWS (Lambda, EventBridge, SNS, DynamoDB, API Gateway, S3, CloudFront, IAM), Terraform, GitHub Actions, Python, boto3, React

- Automated fixes for public S3 buckets, world-open SSH rules, and orphaned EC2 instances with a scheduled Lambda; findings go to CloudWatch, SNS, and DynamoDB, with a React dashboard behind CloudFront (31 Terraform resources)
- Restricted the scheduled Lambda's role to **12 IAM actions** with no delete or terminate permissions; it can only stop EC2 instances with an opt-in tag, enforced in the API filter, in code, and in IAM
- Tested with 59 cases at **98% coverage** in 0.4 s with no AWS access, using injected boto3 clients and real AWS error objects; a fault-injection test shows alerts still go out when the database write fails

Experience

CyberDiverge

Sep 2023 – Aug 2024

Software Engineering Intern

Mississauga, ON

- Ran day-to-day AWS operations across EC2, VPC, S3, RDS, ECS, and Route 53: security group and subnet configuration, load balancing and autoscaling, patching, backups, and snapshot routines
- Audited IAM users, roles, and policies across the team's AWS environments against least privilege and wrote up the resulting permission boundaries, which went into the company's **ISO 27001** certification evidence
- Provisioned and configured environments with **Terraform**, CloudFormation, and Ansible rather than through the console, and set up CloudTrail and CloudWatch metric filters and alarms so unusual activity was flagged for triage
- Worked across AWS security tooling (**GuardDuty**, Security Hub, Config, and KMS) alongside vulnerability scanning, security group audits, SIEM log analysis, and periodic access reviews
- Replaced a multi-step manual release with a single **CI/CD pipeline** trigger for build, test, and deploy, and took part in the on-call rotation and incident response

Headstarter AI

Jul 2024 – Oct 2024

Software Engineering Fellow

Remote

- Shipped five full-stack AI apps in weekly sprints with Next.js, React, and Firebase; built the retrieval side of a support agent with Pinecone and OpenAI

Technical Skills

AWS: EC2, VPC (subnets, security groups, load balancers, autoscaling), Route 53, Lambda, API Gateway, ECS Fargate, RDS, DynamoDB, S3, CloudFront, Cognito, IAM, CloudWatch, CloudTrail, GuardDuty, Security Hub, Config, KMS, Systems Manager, EventBridge, SNS, Secrets Manager

Infrastructure: Terraform, CloudFormation, Ansible, Docker, Kubernetes, Linux, Bash

CI/CD: GitHub Actions (OIDC, PR plan reviews, gated deploys), Git, Checkov, tfint

Security: Least-privilege IAM, OIDC over access keys, JWT and PKCE auth, RDS IAM auth, vulnerability scanning, security group audits, SIEM and log analysis, ISO 27001 compliance

Languages: Python, TypeScript, SQL, HCL, Java, C/C++

Backend & Testing: FastAPI, PostgreSQL (pgvector), Next.js, React, pytest, Playwright, Vitest

Certifications: AWS Solutions Architect – Associate (*in progress*); HashiCorp Terraform Associate (*in progress*)

Education & Leadership

University of Toronto Mississauga

Graduated Aug 2026

Honours Bachelor of Science, Computer Science & Mathematics

Mississauga, ON

- Ran a 10-session Python workshop series on financial modelling and data analysis for 50+ finance students as Co-President of the UTM Finance & Capital Markets Club (2023–2025), writing the curriculum and hands-on projects