

IMROZZOHA CHOWDHURY

Senior Staff DevSecOps & Platform Engineer | AWS | Kubernetes | AI-Powered Systems (RAG, Multi-Agent) | API Platforms (Kong) | Bedrock

ABOUT ME

Senior Staff DevSecOps and Platform Engineer with about 16 years of experience designing and operating large-scale cloud, data and distributed systems across telecommunications, SaaS and banking domains.

Currently building AI-ready enterprise platforms enabling agentic AI systems, semantic data access and automated API generation, with a strong focus on DevSecOps, cloud security and platform automation.

Expert in AWS, Kubernetes, Terraform and CI/CD, with hands-on experience in infrastructure automation, secure platform engineering and developing RAG pipelines, multi-agent systems and end-to-end applications using AI-assisted development tools.

Strong background in DevSecOps, API platforms (Kong Gateway) and secure AI adoption using AWS Bedrock and Guardrails.

EXPERIENCE

SENIOR PLATFORM ENGINEER (SENIOR STAFF DATA ENGINEER @ CBA)

Synechron, Sydney, Australia

Jan 2025 - Present

- Architecting and operating enterprise-scale data and platform systems within AWS Landing Zone, enabling AI-ready architecture (ESDM @ CBA).
- Designing and deploying end-to-end applications (UI, BFF, APIs, PostgreSQL) using AI-assisted development workflows.
- Automating infrastructure using Terraform and AWS CloudFormation for scalable and repeatable deployments.
- Implementing enterprise API platform (Kong Gateway) for internal domain integration and third-party SaaS exposure.
- Integrating Kafka, APIs and semantic data models to enable unified enterprise data access and interoperability.
- Building and operationalizing RAG pipelines and multi-agent AI systems for data-driven automation.
- Leveraging GitHub Copilot, Microsoft Copilot, Claude, and GPT models to accelerate full-stack and infrastructure delivery.
- Working with AWS Bedrock and Guardrails for secure, governed and compliant AI adoption.
- Acting as Security Champion @ CBA, driving:
 - AI-powered security assessments across SDLC
 - DevSecOps governance and compliance
 - AI agent safety and security controls
- Delivered ~AUD 240K annual cost savings by replacing external SaaS with internally deployed semantic platform (Metaphactory) using Docker Compose and AWS infrastructure.

SENIOR DEVOPS ENGINEER / IT ARCHITECT

NCS Group, Singapore

Sep 2023 - May 2024

- Designed and implemented cloud-native microservices platform using Kubernetes (EKS) for enterprise-scale applications.
- Architected and maintained CI/CD pipelines (AWS CodePipeline, CodeBuild, Helm workflows).
- Automated infrastructure provisioning using Terraform, enabling scalable and repeatable deployments.
- Designed and managed API platform architecture (Amazon API Gateway) for secure service exposure.
- Led cloud migration (Bare-metal → AWS) improving scalability, resilience and operational efficiency re-utilizing existing database license cost.
- Implemented DevSecOps security controls including IAM, WAF, TLS/SSL and traffic governance.
- Identified and resolved a misconfigured workload, reducing CloudWatch logging costs by ~\$671/month through improved monitoring and governance.

CONTACT

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<https://imrozzoha.github.io>

EDUCATION

THE AUSTRALIAN NATIONAL UNIVERSITY (ANU), 2009

Master of Information Technology Studies

MONASH UNIVERSITY, 2008

Master of Telecommunication Engineering

AMERICAN INTERNATIONAL UNIVERSITY - BANGLADESH (AIUB), 2006

Bachelor of Science in Computer Engineering

SKILLS

AI & Intelligent Systems: RAG, Multi-Agent Systems, LLM Integration, Bedrock, AI-assisted development.

Cloud & Platform: AWS, Distributed Systems, High Availability, Landing Zone.

DevOps & IaC: Terraform, CloudFormation, CI/CD, Jenkins, GitHub.

Containers: Docker, Kubernetes, Helm.

API & Integration: Kong Gateway, API Gateway, Kafka, Microservices.

Security: IAM, WAF, GuardDuty, DevSecOps, SIEM.

Data: PostgreSQL, DynamoDB, Oracle, ETL, Data Pipelines.

Observability: CloudWatch, ELK, Datadog.

Programming: Python, Bash, PowerShell.

CERTIFICATIONS

AWS Certified Solutions Architect - Associate

AWS Certified SysOps Administrator - Associate

Microsoft Certified Solutions Associate - Windows Server

Red Hat Certified System Administrator (RHCSA)

Red Hat Certified Engineer (RHCE) - Ansible

SENIOR DEVOPS ENGINEER

Digify Pte Ltd, Singapore
Oct 2022 - Aug 2023

- Architected and managed **AWS-based cloud infrastructure** for **secure SaaS platform**.
- Designed and implemented **CI/CD pipelines (Jenkins, PowerShell)**, improving **deployment velocity (~100%)**.
- Automated infrastructure using **Terraform and CloudFormation**.
- Implemented **high availability and disaster recovery (HA/DR)** including **regional failover and backup systems**.
- Led **security hardening** initiatives across **IAM, WAF, TLS and access control mechanisms**.
- Optimized systems using **AWS Well-Architected principles** for performance and cost efficiency.
- Built observability using **CloudWatch, ELK Stack and Datadog**.
- Regularly leveraged **GPT models and AI tools** to enhance **automation, scripting and engineering productivity**.

SITE RELIABILITY ENGINEER

Certain, Inc., San Francisco, California, USA
Nov 2021 - Oct 2022

- Designed and operated **cloud infrastructure across AWS and Azure** for global SaaS platform.
- Built and maintained **high-availability systems** with strong focus on reliability, performance and scalability.
- Contributed to development of **BI/ML data platform** using AWS (S3, Glue, Athena, ECS) and big data pipelines.
- Led **cloud migration strategy** for acquired products (Rackspace → AWS), redesigning architecture **from 2-tier to scalable 3-tier systems**.
- Implemented **Infrastructure as Code** using CloudFormation and SaltStack.
- Enhanced observability and system reliability using **ELK Stack, Datadog and CloudWatch**.
- Supported **24/7 production systems** serving global customers with strict SLA requirements.

FREELANCE TECHNICAL WORK AND CONSULTANCY

Self-employed, Dhaka, Bangladesh
Jul 2019 - Nov 2021

- Delivered **cloud architecture, automation and security solutions** across AWS, Linux and Windows environments.
- Implemented **Infrastructure as Code and automation** using Terraform, Ansible and Bash scripting.
- Designed and deployed **containerized systems** using Docker and Kubernetes.
- Provided **IAM and security architecture solutions** across cloud and enterprise systems.
- Supported **Microsoft 365** deployment, configuration and enterprise troubleshooting.

SENIOR LEAD ENGINEER - CORE AND SERVICE PROJECTS, TECHNOLOGY

Grameenphone Ltd., Dhaka, Bangladesh
Nov 2017 – Jun 2019

- Led **large-scale cloud and NFV (Network Function Virtualization) projects** across telecom infrastructure.
- Designed and deployed **cloud-native platforms** using Nokia and Huawei technologies.
- Delivered **enterprise-grade infrastructure systems**, including security platforms and centralized logging systems.
- Managed **multi-vendor, multi-system integrations** across critical telecom environments.

LEAD ENGINEER - VOICE & DATA SERVICE OPERATION, TECHNOLOGY

Grameenphone Ltd., Dhaka, Bangladesh
May 2015 – Oct 2017

- Led operations of **mission-critical telecom systems** supporting **~70 million subscriber base**.
- Directed major initiatives including:
 - **HLR migration (53M+ SIM, 35M+ subscribers)**.
 - LTE trials and network modernization.
- Managed **security audits, vulnerability remediation and IAM systems**.
- Provided technical leadership for performance optimization and system reliability.

SENIOR SYSTEM ENGINEER - VOICE & DATA SERVICE OPERATION, TECHNOLOGY

Grameenphone Ltd., Dhaka, Bangladesh
Jan 2012 – May 2015

- Administered **core telecom infrastructure** across Linux and Windows systems.
- Managed **subscriber database systems (Oracle, MS SQL)**.
- Implemented **IAM integrations and SIEM systems** for enterprise security.
- Provided **24/7 operational support** for critical network services.

EXECUTIVE - REVENUE ASSURANCE & FRAUD MANAGEMENT, TECHNOLOGY

Grameenphone Ltd., Dhaka, Bangladesh
Jun 2010 – Dec 2011

- Built **data validation and fraud detection systems** using SQL and ETL processes.
- Performed **data reconciliation across telecom systems** to ensure revenue integrity.
- Designed and implemented **controls and monitoring systems** for financial risk reduction.