



# AHMAD FERDAUS ABD RAZAK

Cloud Technical Architect

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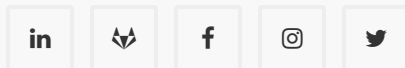
Cloud architecture design, solutioning, and consultation with emphasis on Amazon Web Services (AWS). Managing Cloud landing zone frameworks, developing and co-developing solutions, and helping teams design and deploy applications.

**CYBERJAYA, MALAYSIA**

RESIDENCE

**MALAY (NATIVE), ENGLISH (FLUENT)**

LANGUAGES



## CERTIFICATIONS

# aws certified



## PUBLIC CONTRIBUTIONS

### SOURCE CODE REPOSITORY

[GitHub](#)

### PYTHON MODULE RELEASES

[PyPI](#)

### PORTFOLIO

[WarpedLenses](#)

## ACCOMPLISHMENT HIGHLIGHTS



### CLOUD

1. Designed an event-driven automation and process to preempt resource expiration using lifecycle event data from Cloud providers.
2. Designing Infrastructure-as-Code CI / CD pipelines for Cloud environment management.
3. Working on reducing Cloud costs by establishing a company-wide process for analyzing and eliminating underutilized resources.
4. Working on securing managed Cloud services by ensuring private connectivity for deployed resources within the organization.
5. Working with internal teams and technical vendors for cross-company Cloud platform integrations and multiple platforms Single Sign-On (SSO) migration efforts.
6. Worked in a cross-disciplinary team to establish compute resource security and management practices across the company using AWS Systems Manager and Packer.
7. Integrated multiple security components (tfsec, InsightCloudSec-IaC, and Sentinel) in the company's Terraform workflow.
8. Working with solution providers to optimize Terraform resource consumption and user experience.
9. Developed new strategies and roadmaps for company-wide Cloud direction and supporting platforms (Terraform, source control, pipelines, security, accessibility, etc.).
10. Integrated new Cloud-Native Application Protection Platform (CNAPP) security monitoring tool (Wiz.io) with organization AWS, Azure, and Google Cloud Platform (GCP) environments.
11. Developed a Terraform-based automation with source control and pipeline execution to manage MongoDB Atlas Projects with PrivateLink network configuration to AWS for multiple teams across the company.
12. Supported multiple teams to establish GCP projects for Research & Development purposes.
13. Integrated multiple security, automation, and validation components into a complete workflow for infrastructure deployments.
14. Developed a Terraform tier-promotion pipeline with automated testing, and a manual approval step for Production deployments.
15. Developed an AWS shared VPC model with Men & Mice DNS and Aviatrix network integration to help optimize Cloud costs for the company

16. Defined an Infrastructure-as-Code Pull Request review strategy for organization-wide usage.
17. Created reusable Terraform modules for multiple purposes.
18. Tested, commissioned, and onboarded Terraform as a unified Infrastructure-as-Code platform.
19. Created an online software evaluation system by developing an Infrastructure-as-Code solution and an API to stream a desktop application (LabVIEW) through a web browser.
20. Contributed to the creation of a university (Universiti Sains Malaysia) industrial training content by developing an API-led, event-driven, loosely-coupled, stateless, serverless proof-of-concept for distributed computing using AWS Lambda, API Gateway, SQS, SNS, and DynamoDB along with corresponding assignment projects.
21. Developed a collection of Python classes and functions for common AWS operations that can be reused by developers and systems administrators.
22. Developed a serverless API using AWS Lambda, API Gateway, DynamoDB, and Azure DevOps to enable self-service and fully-automated Content Delivery Network (CDN) cache purge for web contents.
23. Developed a serverless API to automate software and document publishing from on-premises storage to web repository. There is also a working Python frontend to interact with the API as a reference implementation.
24. Developed an authentication and authorization layer for token-based access to Cloud-based APIs.
25. Consulting in designing and troubleshooting Cloud deployments.



## **OUTREACH**

1. Participated as technical judge in the USM Varsity Hackathon 2023.
2. Delivered a presentation and a live demonstration on Infrastructure-as-Code in the Cloud with Terraform and Kubernetes to Universiti Sains Malaysia (USM).
3. Delivered an Introduction to Cloud (with emphasis on Automation and Distributed Computing) presentation and a live demonstration to Universiti Sains Malaysia (USM).
4. Delivered a Cloud Security presentation to Universiti Sains Malaysia (USM).
5. Participated as innovation judge in Coolest Projects Malaysia.

# SKILLS

## CLOUD

Amazon Web Services / AWS (90%)



Microsoft Azure (50%)



Google Cloud Platform / GCP (65%)




## PLATFORMS & SYSTEMS ADMINISTRATION

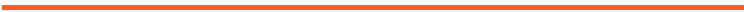
Terraform (85%)



Sentinel (60%)



Packer (60%)



Version Control & CI / CD (GitHub & Azure DevOps) (80%)




MongoDB Atlas (65%)



Kubernetes / Containers (60%)



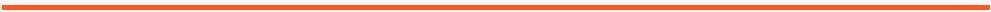
Wiz.io (20%)



Azure AD / Microsoft Entra ID (40%)



GNU / Linux (80%)



Apache / HAProxy / FTP / DNS (90%)



Networking (60%)



Cloud Application Design (70%)



## **CODING & SCRIPTING**

Python (90%)

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Go (45%)

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tfsec (70%)

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Terratest (50%)

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Bash (90%)

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API Development, Management, and Documentation (60%)

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## **EXPERTISE**

### **CLOUD INFRASTRUCTURE AND DEV OPS**

Creating Cloud solutions for inter-application interactivity, designing and troubleshooting Cloud infrastructure deployments, developing serverless API, integrating Cloud services, managing Cloud and Dev Ops environments, and developing strategies for Cloud and DevOps.

### **SYSTEMS ADMINISTRATION**

Managing Linux-based infrastructure setup and operations.

### **AUTOMATION**

Systems & platforms automation using BASH, Python, Ansible, Packer, Terraform, and Go.

### **WEB DEVELOPMENT**

Python, PHP, HTML, JavaScript, CSS, & MySQL web development in a Linux-based environment.



## AWARDS



### **AWS CERTIFIED DEVOPS ENGINEER - PROFESSIONAL**

Completed the AWS Certified DevOps Engineer - Professional exam successfully. Certified by Amazon in 2021.



### **AWS CERTIFIED SYSOPS ADMINISTRATOR - ASSOCIATE**

Completed the AWS Certified SysOps Administrator - Associate exam successfully. Certified by Amazon in 2020.



### **AWS CERTIFIED SOLUTIONS ARCHITECT - ASSOCIATE**

Completed the AWS Certified Solutions Architect - Associate exam successfully. Certified by Amazon in 2019.



### **AWS CERTIFIED CLOUD PRACTITIONER**

Completed the AWS Certified Cloud Practitioner exam successfully. Certified by Amazon in 2019.



### **EAGLE EXCELLENCE AWARD**

Created eCommerce data load automation to shorten code deploy process by 50%. Awarded by NI Malaysia Sdn Bhd in 2018.



### **MyGOSS AWARD**

Application of Free & Open Source Software in the Malaysian Public Sector. Awarded by MAMPU, the Prime Minister's Department, Government of Malaysia in 2010.

## EXPERIENCE

January 2024 - Present

**CLOUD TECHNICAL ARCHITECT - AWS**

Emerson

Penang, Malaysia

October 2023 - December 2023

**PRINCIPAL DEV OPS ENGINEER & TECHNICAL LEAD**

NI (now part of Emerson)

Penang, Malaysia

August 2022 - October 2023

**PRINCIPAL DEV OPS ENGINEER & TECHNICAL LEAD**

NI

Penang, Malaysia

February 2022 - July 2022

**PRINCIPAL CLOUD SERVICES ENGINEER**

NI

Penang, Malaysia

March 2021 - January 2022

**SENIOR CLOUD SERVICES ENGINEER**

NI

Penang, Malaysia

June 2020 - March 2021

**CLOUD ENGINEER**

NI

Penang, Malaysia

2017 - 2019

**WEB SYSTEMS ENGINEER**

NI

Penang, Malaysia

## EDUCATION

2001 - 2006

**BSA AEROSPACE ENGINEERING**

**University of Michigan**

Ann Arbor, USA

1994 - 1999

**MALAYSIAN CERTIFICATE OF EDUCATION**

**The Malay College Kuala Kangsar**

Kuala Kangsar, Malaysia