MUHAMMAD IRFAN BIN ZULKIFLE

Junior Cloud Engineer | AWS Certified Cloud Practitioner | CompTIA Network+ | Cloud Infrastructure, Automation and Support

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PROFESSIONAL SUMMARY

AWS Certified Cloud Practitioner and CompTIA Network+ certified AWS re/Start graduate seeking a junior cloud engineering, cloud support, cloud operations or junior DevOps role. Designs and troubleshoots AWS environments across VPC networking, EC2, S3, IAM, Security Groups and NACLs, and automates them using Terraform, CloudFormation and GitHub Actions. Portfolio work includes a keyless OIDC deployment pipeline to ECS Fargate, a hardened CloudFormation VPC baseline scanned by cfn-lint and Checkov, and a Python cloud security posture analyzer mapped to CIS AWS Foundations Benchmark v1.4.0. Applies OSI-layer fault isolation, structured change documentation and the compliance discipline developed in regulated banking operations to cloud support and operations work.

CERTIFICATIONS

AWS Certified Cloud Practitioner (CLF-C02) | Certified August 2026
CompTIA Network+ (N10-009) | Certified March 2026
CompTIA Cloud+ (CV0-004) | Exam scheduled October 2026
AWS Certified Solutions Architect - Associate (SAA-C03) | Exam scheduled November 2026
Google IT Support Professional Certificate | July 2020

TECHNICAL SKILLS

AWS Services: EC2, S3, EBS, EFS, IAM users, roles, policies and instance profiles, VPC, subnets, route tables, Internet Gateway, NAT Gateway, Security Groups, NACLs, Elastic IP, Route 53, Application Load Balancer, Auto Scaling, RDS, DynamoDB, Lambda, ECS Fargate, ECR, Systems Manager Session Manager, Run Command and Parameter Store, CloudWatch, CloudTrail, AWS Config, KMS, VPC Flow Logs
Infrastructure as Code and CI/CD: Terraform, AWS CloudFormation, GitHub Actions, GitHub OIDC federation, CI/CD pipeline design, Docker, Kubernetes manifests including Deployment, Service, ConfigMap, Secret and HorizontalPodAutoscaler, Trivy image scanning, cfn-lint, Checkov, cloud-init and user data
Cloud Security: IAM least privilege, role scoping and trust policies, MFA, SSH-less access patterns, encryption at rest and in transit concepts, S3 public access review, security group exposure analysis, CIS AWS Foundations Benchmark v1.4.0, shared responsibility model, network segmentation, defence in depth
Monitoring and Observability: CloudWatch metrics and logs, CloudTrail audit logging, AWS Config compliance monitoring, VPC Flow Log review, Prometheus, Grafana, Syslog, SNMP, NTP, health and port checks, webhook alerting, incident triage and escalation
Cloud and Data Centre Networking: VPC design and CIDR planning, public and private subnet architecture, bastion host patterns, IPsec site-to-site VPN, TCP/IP, DNS, DHCP, subnetting, VLSM, NAT and PAT, ACLs, load balancing, high availability and disaster recovery concepts, Azure VNet fundamentals
Systems and Scripting: Linux (Amazon Linux, Ubuntu, RHEL), Bash, systemctl, chmod, Apache and httpd, Windows Server fundamentals, Python, asyncio, SQL fundamentals, SQLite, Git and GitHub, AWS CLI, Markdown technical documentation
Tools: AWS Management Console, AWS CLI, AWS Systems Manager, Terraform, Docker, GitHub Actions, VS Code, Git Bash, curl, PuTTY, Cisco Packet Tracer, Cisco IOS CLI, Microsoft Office, Google Workspace

CLOUD PROJECTS AND TECHNICAL PORTFOLIO

ECS Fargate CI/CD Pipeline | Terraform, GitHub Actions, AWS ECS Fargate | github.com/irfanzulkifle/ecs-fargate-cicd-pipeline

- Deployed a containerised FastAPI service to AWS ECS Fargate, with every push to main running tests, building the image, pushing to Amazon ECR and rolling the service onto the new task definition.
- Authenticated GitHub Actions to AWS through OIDC federation with no static access keys, scoping the deploy role trust policy to a single repository and limiting its permissions to one ECR repository and one ECS service.
- Gated the pipeline with Trivy image scanning that fails the build on CRITICAL or HIGH findings, and Checkov scanning of the Terraform, which passes with zero failures and records an inline reason for every deliberate skip.
- Provisioned VPC, ECR, Application Load Balancer, ECS Fargate and CloudWatch Logs with Terraform, restricting task traffic to the load balancer security group so the service is never directly reachable from the internet.

Cloud Security Posture Analyzer | Python, AWS Security and Network Exposure Analysis | github.com/irfanzulkifle/cloud-security-posture-analyzer

- Developed a Python command-line tool that parses infrastructure inventory, security group rules and VPC Flow Log samples to detect cloud security and network exposure risks.
- Flagged publicly reachable SSH, RDP and database ports, public S3 buckets, weak encryption posture, privileged IAM users without MFA, stale access keys and repeated rejected traffic to administrative ports.
- Generated Markdown reports with severity ratings, supporting evidence, risk scores and remediation steps mapped to CIS AWS Foundations Benchmark v1.4.0, with detection logic covered by Python unittest.

AWS VPC and EC2 Baseline | CloudFormation, Systems Manager, CI Security Scanning | github.com/irfanzulkifle/aws-vpc-ec2-baseline

- Authored a reusable, parameterised CloudFormation baseline provisioning a VPC with public and private subnets, routing and VPC Flow Logs enabled by default.
- Removed inbound SSH exposure entirely by granting administrative access through Systems Manager Session Manager and an instance profile instead of key pairs and an open port 22.
- Validated every change in CI using cfn-lint and Checkov so infrastructure misconfiguration is caught before deployment rather than after.

Cloud Network and Connectivity Troubleshooting Labs | AWS VPC, EC2, Systems Manager | 2026

- Designed VPC address plans covering CIDR allocation, public and private subnets, route tables, Internet Gateway and NAT Gateway, then diagnosed instance reachability failures layer by layer.

- Isolated connectivity faults caused by incorrect route table entries, Security Group rules, NACL rule ordering, missing public IP assignment and SSH key-pair issues.
- Reviewed VPC Flow Logs, CloudWatch metrics and logs, CloudTrail events and AWS Config records to trace rejected traffic, confirm configuration changes and support root cause analysis.

Additional Projects | Monitoring, Kubernetes and Technical Documentation

- Network Health Monitor (github.com/irfanzulkifle/network-health-monitor): asynchronous Python monitor checking ICMP reachability and TCP service ports from a YAML inventory, storing history in SQLite, computing uptime and latency, and alerting by webhook only on state transitions; scheduled by a systemd timer and exits non-zero to gate a cron or CI step.
- K8s Demo App (github.com/irfanzulkifle/k8s-demo-app): containerised FastAPI service with Deployment, Service, ConfigMap, Secret and HorizontalPodAutoscaler manifests, provisioned by Terraform with an automated build, Trivy scan and deployment pipeline.
- AWS re/Start Notes Website (github.com/irfanzulkifle/aws-notes-website): searchable documentation site holding 36 lecture notes and 11 weekly summaries across networking, Linux, security, databases and cloud services, deployed on Vercel.

TECHNICAL TRAINING

Future AWS Agentic AI Business Professional Nanodegree Program | Udacity, sponsored by AWS | 2026 - Present

- Currently completing a sponsored nanodegree covering agentic AI systems, autonomous workflow design and the application of AI agents to business operations, alongside self-directed agent infrastructure work involving multi-model LLM routing and Prometheus and Grafana observability on a Linux VPS.

AWS re/Start Program | Forward College, Exabytes CCoE and AWS | April 2026 - August 2026

- Completed a full-time cloud and infrastructure programme covering AWS services, Linux administration, Python, SQL, databases, cloud security, systems operations and technical support practice.
- Delivered graded labs and assessments across EC2, S3, IAM roles and policies, VPC components, Security Groups versus NACLs, AWS CLI and Systems Manager, alongside TCP/IP, DNS, DHCP, subnetting and network hardening.

Network and Multicloud Bootcamp | Nexperts Academy, sponsored by Yayasan Peneraju | November 2025 - December 2025

- Completed a 6-week programme combining 3 weeks of CompTIA Network+ N10-009 training with 3 weeks of CompTIA Cloud+ CV0-004 multicloud training.
- Worked AWS and Azure labs covering EC2, Azure Virtual Machines, EBS and EFS, IAM and RBAC, VPC and VNet design, NAT Gateway, bastion host patterns, Route 53 and Azure DNS, load balancing, Auto Scaling, high availability and disaster recovery concepts.

PROFESSIONAL EXPERIENCE

Store Operations Associate and Division Leader | AEON Co. (M) Berhad | 2019 - 2020

- Coordinated daily division operations, staff scheduling, stock movement and issue resolution in a high-volume retail environment across rotating morning, evening, weekend and public-holiday shifts.
- Triaged and prioritised operational faults and customer escalations under time pressure, communicated clear next steps and escalated system issues to IT support.
- Operated point-of-sale and internal systems for transaction processing, inventory tracking and accurate operational reporting.

Credit Analyst | Public Bank Berhad | 2017 - 2018

- Assessed individual and corporate credit applications by analysing financial statements, repayment capacity and risk factors to support evidence-based decisions.
- Coordinated with solicitors, valuers, engineers and internal departments to resolve documentation discrepancies and keep cases progressing to deadline.
- Maintained accurate records in regulated banking systems with strict attention to confidentiality, data integrity and compliance procedures.
- Managed multiple concurrent cases and dependencies, building the documentation discipline and stakeholder communication applied to cloud change and incident records.

EDUCATION

Bachelor of Science, Microbiology | The University of Queensland, Australia | January 2014 - July 2017 | CGPA 5.96/7.0 (equivalent to 3.61/4.0)

ADDITIONAL INFORMATION

Languages: Bahasa Malaysia (native), English (professional working proficiency)
Availability: Immediate. Open to onsite work, rotating shifts, standby duty and travel to customer sites within Malaysia.
Work authorisation: Malaysian citizen, no sponsorship required.