

AARJAN POKHAREL

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PROFESSIONAL SUMMARY

AWS Certified Solutions Architect and Computer Science graduate student with hands-on experience building cloud infrastructure with Terraform, containerizing applications with Docker, and automating CI/CD pipelines with GitHub Actions. Brings a strong foundation in Linux administration, networking, and security from professional vulnerability assessment and system hardening work, along with Python and Bash scripting for automation, monitoring, and reliable system design.

TECHNICAL SKILLS

Cloud & Infrastructure: AWS (EC2, VPC, S3, RDS, ECR, IAM, CloudWatch, CloudFormation), Azure, GCP, Infrastructure as Code, Cloud Migrations

DevOps & Automation: Docker, Docker Compose, Kubernetes, Terraform, CI/CD, GitHub Actions, Jenkins, Ansible, GitLab

Linux & Systems: Linux Administration (RedHat, Ubuntu, Amazon Linux), Windows Server, Shell Scripting, System Monitoring, Troubleshooting

Databases: MySQL, PostgreSQL, MSSQL, NoSQL, Data Warehousing

Networking: TCP/IP, DNS, Routing, Firewalls, Load Balancers, VPN, Network Security

Security: IAM, Vulnerability Management, Penetration Testing, Compliance Frameworks (ISO 27001), Security Best Practices, OAuth2, JWT

Programming & Scripting: Python, Django, FastAPI, Bash, SQL, Java, JavaScript, React, Nextjs, C#, .Net, Visual Studio, Go (learning), Configuration management automation

Tools & Monitoring: Git, GitHub, CloudWatch, Grafana, Wireshark, Nmap, REST APIs, GraphQL, Apache Kafka, RabbitMQ, SQS/SNS

CERTIFICATIONS

AWS Certified Solutions Architect – Associate — [Verify on Credly](#)

PROJECTS

CI/CD Pipeline for Dockerized API Application (AWS)

[GitHub](#)

- Provisioned full AWS infrastructure as code with Terraform — VPC, subnets, Internet Gateway, route tables, security groups, IAM roles, and EC2.
- Containerized a Flask application with Docker, stored images in Amazon ECR, and automated build-and-deploy to EC2 using GitHub Actions, eliminating manual deployment steps.
- Applied IAM least-privilege roles and security group rules to harden the deployment.

Secure 3-Tier AWS Architecture with Automated Deployment

[GitHub](#)

- Designed a multi-AZ, 3-tier architecture with public and private subnets, isolating an RDS MySQL database in private subnets.
- Configured NAT Gateway and Elastic IP for controlled outbound access while blocking inbound traffic, and enforced tier-to-tier security group rules.
- Automated provisioning with Terraform and GitHub Actions for repeatable, version-controlled deployments.

Multi-Container Microservices App with Docker Compose

[GitHub](#)

- Built a microservices architecture separating API and database services across Linux-based containers; troubleshoot container networking and tuned performance to validate service-to-service communication and availability.

Private EC2 to S3 Access via VPC Gateway Endpoint

[GitHub](#)

- Enabled private EC2 instances to reach Amazon S3 with no internet exposure using a VPC Gateway Endpoint, IAM roles, and S3 bucket policies; added a bastion host for controlled SSH access and automated the setup with Terraform.

PROFESSIONAL EXPERIENCE

Information Security Engineer — Biz Serve IT Pvt. Ltd.

June 2023 – Dec 2024

- Led teams of 5–7 engineers across 8 security audit projects for banking, microfinance, IT, and insurance clients, delivering 100% adherence to **ISO 27001** and cybersecurity best practices.
- Hardened **Linux** and Windows server configurations and reviewed firewall and network rules across 90+ assets in 20+ organizations, remediating critical vulnerabilities.
- Performed **vulnerability assessments and penetration testing** on networks, databases, and applications, applying patches that measurably strengthened security posture, and served as primary client contact across 9 projects.

Cybersecurity Analyst Intern — Reanda Biz Serve Pvt. Ltd.

Feb 2023 – May 2023

- Identified and documented critical security flaws in client endpoints, strengthening communication between frontend and backend services.
- Used **Linux-based tools** and security frameworks to validate web assets and configurations, producing remediation reports that guided developers on fixes.

EDUCATION

M.S. Computer Science — Wright State University, Dayton, OH

Expected Aug 2027

