Karandeep Singh

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SUMMARY

AWS Certified Solutions Architect – Associate with a BCIT Computer Information Technology diploma (infrastructure track). Built and operated a CI/CD pipeline to ECS Fargate with keyless OIDC auth, a segmented three-tier VPC with tested alarms and a five-incident troubleshooting log, and a Dockerized tool for a real workplace process. Seeking a DevOps, cloud, or systems role.

SKILLS

Cloud (AWS)	VPC, EC2, ECS Fargate, ECR, RDS, DynamoDB, S3, IAM, ALB, NAT Gateway, CloudWatch, SNS, Secrets Manager, Systems Manager, Route 53
CI/CD & IaC	GitHub Actions, Terraform, Packer, Ansible, Vagrant, GitHub OIDC
Containers & systems	Docker, Docker Compose, Linux (Ubuntu, Amazon Linux), Windows Server (Active Directory, Group Policy), VMware Workstation, systemd, Nginx, Bash, Git
Networking	TCP/IP, DHCP, DNS, subnetting and routing, security groups, NAT, load balancing
Databases & development	MySQL, PostgreSQL, DynamoDB, Python (Flask, FastAPI), Node.js, TypeScript, React, REST APIs

PROJECTS

Self-deploying app on AWS · github.com/karan-sohi/ship-on-push — Sep 2026

- Built a GitHub Actions pipeline that tests, containerizes and deploys to ECS Fargate behind an ALB on every push — commit to live in under 10 minutes.
- Zero-downtime rolling deployments: new task must pass ALB health checks before the old one drains; deployment circuit breaker rolls back failed releases.
- Eliminated stored AWS keys with GitHub OIDC federation into a short-lived IAM role; images tagged by commit SHA for one-step rollback.
- Ran the full stack for about $10/month; scaled the service to zero between demos to cut cost further.

Three-tier AWS environment · github.com/karan-sohi/aws-three-tier-webapp — Aug 2026

- Deployed ALB → EC2 → RDS MySQL across two AZs in a segmented VPC with public/private subnets and a NAT Gateway.
- Locked down access: no public IP, no SSH — SSM Session Manager only; tiered security groups; secrets fetched at runtime.
- Built CloudWatch dashboards and SNS alarms, then verified each by inducing the failure — which exposed a real threshold bug.
- Documented five real incidents (IAM, NAT routing, environment config, alarm threshold, systemd) as root cause → fix → prevention.
- Built, tested and tore down the environment in sessions — total AWS cost for the month: $2.05.

DocVault — self-hosted document control · github.com/karan-sohi/DocVault — Jun 2026

- Built a document-versioning tool for a real QA process at my workplace: versioned uploads, role-based users, SMTP alerts.
- React/TypeScript frontend, Node API, PostgreSQL, local or S3 storage; one-command deployment with Docker Compose.

Earlier infrastructure projects · BCIT

- **Packer + Terraform three-tier deploy:** Packer-built AMIs; Terraform-managed VPC, subnets, security groups and EC2.
- **Ansible roles on Vagrant:** four roles provisioning Nginx, a systemd-managed backend, hardened MySQL and Node.js.
- **Kafka microservices:** five containerized services over Kafka and MySQL behind an Nginx load balancer.

EXPERIENCE

Monte Cristo Bakery · Baker (Red Seal) · Delta, BC — 2020 – Present

- Run production and sanitation to documented procedures in a food-safety-regulated environment.
- Maintain QA forms and records; train new staff on process and compliance.
- Identified a document-control gap in the QA process and built DocVault as a working prototype (see Projects).
- Completed the BCIT Computer Information Technology diploma while working here full-time.

EDUCATION

Diploma in Computer Information Technology · British Columbia Institute of Technology (BCIT) — 2022

Infrastructure track: Linux and Windows Server administration, enterprise networking, cloud computing (AWS), system and network provisioning. Industry project: internal portal for WorkSafeBC in C# / ASP.NET, team of five.

CERTIFICATIONS & LANGUAGES

- **AWS Certified Solutions Architect – Associate** · Aug 2026 · Verify on Credly
- **Red Seal — Baker** · Interprovincial trade certification · **Languages:** English, Punjabi, Hindi