# Mohd Farhan Khan

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#### TECHNICAL SKILLS

Languages: Python, Bash, JavaScript

Tools: AWS (EC2, S3, ECS, Lambda, IAM, CloudWatch, CodePipeline), Terraform, CloudFormation, Docker, Kubernetes, GitHub Actions, Prometheus, Grafana, Trivy, KubeArmor, Ollama, ChromaDB (RAG)

## PROJECTS

## Enterprise Document Chatbot | Ollama, FastAPI, ChromaDB, React, Docker

- Developed a Retrieval-Augmented Generation (RAG) chatbot capable of answering queries from enterprise documents (PDF, DOCX).
- Integrated Ollama for local LLM inference, eliminating reliance on external APIs (OpenAI/Claude).
- Containerized services with Docker Compose and exposed REST endpoints for ingestion, health, and query.
- Delivered a full-stack solution (React frontend + FastAPI backend) demonstrating scalable and modular AI deployment.

## Wisecow - Kubernetes CI/CD App | Kubernetes, Docker, GitHub Actions, Trivy, KubeArmor

- Containerized and deployed a Node.js microservice on Kubernetes with Ingress, liveness/readiness probes, and ConfigMaps.
- Implemented GitHub Actions pipeline (test  $\rightarrow$  build  $\rightarrow$  scan  $\rightarrow$  deploy) with automated Trivy security scanning.
- Applied KubeArmor security policies and non-root containers to enforce runtime hardening.
- Set up monitoring with Prometheus + Grafana for metrics and dashboards, replicating real-world production practices.

## AI-Driven Cloud Infrastructure Monitor | AWS Lambda, CloudFormation, CloudWatch, SNS, Python

- Automated deployment of a serverless monitoring system using CloudFormation (infrastructure-as-code).
- Configured AWS Lambda functions to process CloudWatch metrics and send alerts via SNS.
- Integrated optional AI-based log analysis to provide predictive insights for infrastructure health.
- Enabled one-command deployment, showcasing operational excellence with reproducible IaC.

## Self-Healing Infrastructure | Terraform, AWS ASG, ALB, EC2, IAM

- Provisioned a fault-tolerant web application architecture with Terraform (IaC).
- Configured Auto Scaling Group (ASG) and Application Load Balancer (ALB) to automatically replace failed instances.
- Defined IAM roles and outputs for secure, repeatable provisioning of cloud infrastructure.
- Documented high-availability architecture with scalability and resilience considerations.

#### EXPERIENCE

Associate Software Engineer

$Accenture \ ATCI$	Gurugram, Haryana
Education	
St. Anthony's Sec. School High School -79.6	Fatehgarh, U.P.  March 2018
St. Anthony's Sec. School Intermediate -72.2	Fatehgarh, U.P.  March 2020
NIET Gr. Noida B.TECH (I.T.)-76	Gr. Noida, U.P. Oct. 2020 – May 2024

Sept. 2024 – Present