

# VAIBHAV GAGNEJA

DevOps Engineer

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Portfolio

## TECHNICAL SKILLS

**Cloud & Orchestration:** Docker, Kubernetes (AKS), Azure, AWS, Microservices Architecture

**CI/CD & Automation:** GitHub Actions, Jenkins, Azure DevOps, Argo CD, GitOps, Shell Scripting

**Infrastructure & Database:** Azure SQL, MongoDB, PostgreSQL, Managed Identity, Key Vault

**Scripting & Backend:** Python, Java, Spring Boot, Spring Security

**Test Automation:** Selenium, TestNG, Cucumber, Postman, REST Assured

## EXPERIENCE

### PricewaterhouseCoopers (PwC)

Associate 2

March 2022 – August 2023

Bengaluru, India

- Implemented **Zero-Trust Security** architecture using Azure Entra ID (Managed Identity), enabling credential-free access to Azure Data Explorer and Key Vault, achieving zero security incidents.
- Architected a **Zero-Downtime deployment** strategy with context-aware routing, supporting 99.9% uptime for production deployments across 5 environments (Dev, QA, Staging, Prod).
- Automated incident management by integrating Centralized Alert Gateway (CAG) with ServiceNow, reducing manual ticket creation time by **80%** and MTTR by **40%**.
- Designed and deployed multi-tenant RESTful APIs supporting high-traffic streaming platforms (Peacock, SkyShowtime) using ASP.NET Core and Azure Table Storage.
- Optimized legacy workflows by migrating Excel VBA applications to C# .NET, exposing functionality via APIs to improve performance and maintainability.

## PROJECTS

### Cloud-Native Voting App Pipeline | Azure DevOps, Argo CD, AKS, Docker

- Architected a **GitOps** workflow using **Argo CD** to synchronize Kubernetes manifests, ensuring automated and consistent application state across clusters.
- Built a CI/CD pipeline in **Azure DevOps** to build Docker images and push to Azure Container Registry (ACR), reducing deployment capability time from hours to minutes.
- Deployed a microservices-based Spring Boot application to **Azure Kubernetes Service (AKS)**, utilizing Ingress controllers for efficient traffic routing.

### Scalable Video-to-MP3 Microservices | Python, RabbitMQ, Kubernetes, MongoDB

- Designed an asynchronous event-driven architecture using **RabbitMQ** to decouple video processing from the API layer, improving system resilience under load.
- Containerized Python services using **Docker** and orchestrated deployments on **Kubernetes** (K8s) for auto-scaling capabilities.
- Integrated MongoDB for metadata storage and implemented JWT-based authentication for secure API access.

## RESEARCH

### ES-LSTM: Hybrid Model for Financial Forecasting | Python, TensorFlow, Time Series

- Published research in *Digital Finance* (Springer) on a hybrid deep learning model (ES-LSTM) that achieved an  $R^2$  score of 0.9712 on S&P 500 data.
- Engineered a data processing pipeline using Python (Pandas/Statsmodels) to automate data retrieval, noise reduction, and model training for large-scale financial datasets.

## CERTIFICATIONS

### Certified Kubernetes Application Developer (CKAD)

Microsoft Certified: Azure Fundamentals

## EDUCATION

### Punjab Engineering College

Master of Technology: Computer Science — CGPA: 7.97

Aug 2023 – Oct 2025

Chandigarh, India

### Maharishi Markandeshwar University

Bachelor of Technology: Computer Science — CGPA: 9.14

July 2018 – May 2022

Ambala, Haryana