

Divesh Kumar

Solution Engineer | Full-Stack | DevOps | Kubernetes | AWS | Azure | GCP | Python | Terraform | CI/CD

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Profile Summary

Passionate Solution Engineer with 4+ years of experience delivering cloud-native, full-stack, and DevOps solutions across multi-cloud environments (AWS, Azure). Proven expertise in leading ML infrastructure and Kubernetes-based platform projects, automating CI/CD pipelines, and building scalable applications using Python (Flask, FastAPI), Terraform, and Kubernetes. Strong background in designing serverless and cloud-agnostic architectures, managing production-grade deployments, implementing observability and alerting, and ensuring reliability at scale. Experienced in client-facing engagements, technical demos, and cross-functional collaboration to align engineering solutions with business goals in agile environments.

Professional Experience

Innovatics | Technical Lead | Solution Engineer (Ahmedabad) | 04/2024 - Present

- Led **ML-Studio**, a **cloud-agnostic, Low-Code ML Framework** project enabling rapid model development and deployment across **AWS, Azure, and GCP**.
- Migrated a **legacy Ruby system** (9 databases) to **Python**, improving maintainability and preparing for **production deployment (Control Case)**.
- Built and maintained **CI/CD pipelines** using **Terraform, Jenkins, Bitbucket Pipelines, and Azure DevOps**, reducing deployment time and human intervention.
- Conducted **R&D on client-requested technologies** such as **DNS configurations**, secure server setup, and domain mapping (TenderHealth).
- Developed backend services with **FastAPI** and frontend components using **React**, focusing on scalability and modularity.
- Implemented **serverless architecture** using **AWS Lambda**, integrated **API security** via key-based authentication, and ensured **RBI compliance** via automated audit pipelines.
- Managed **DevOps responsibilities** including **infrastructure automation, dynamic model deployment, and production rollout** across client projects.
- Designed and deployed a **production-grade Kubernetes compliance platform** using **Helm charts** for standardized, repeatable deployments across environments.
- Implemented **infrastructure-level and application-level monitoring & alerting**, enabling proactive detection of pod failures, resource anomalies, and service errors.
- Deployed the **frontend UI via Cloud CDN**, improving global access latency and ensuring secure, scalable delivery of static assets.
- Led end-to-end response to a **critical AWS access key leakage incident**, rotating and re-wiring credentials across **all services, CI/CD pipelines, and environments** to restore platform security.
- Investigated and identified the **attack vector using AWS CloudTrail**, tracing unauthorized role assumptions and lateral movement across IAM roles; coordinated with **AWS Support** during extended incident calls and continuous weekend monitoring to ensure full remediation.

Razor Edge | Full Stack Developer (DevOps-Focused Role) (Mumbai) | 04/2022 - 03/2024

- **End-to-End Web Application Development:** Built and maintained web applications using **React.js, Node.js, MongoDB, and Next.js**.
- **Stock Market Analytics:** Developed a **financial data processing system** integrating **ChatGPT for AI-driven stock analysis**.
- **Automated Helpdesk System:** Created an intelligent chatbot using **NLP and ML** for automated ticket categorization and real-time notifications.
- **API Development & Integration:** Developed and deployed **100+ REST APIs** for financial decision-making platforms.

Technical Skills

- **DevOps & Cloud:** AWS (ECS, EC2, S3, CloudFormation, Lambda, CloudWatch, IAM), Kubernetes, Terraform, Ansible, CI/CD (Jenkins, GitHub Actions, Bitbucket Pipelines)
- **Programming & Scripting:** Python (Flask, FastAPI, Django), Bash, JavaScript (Node.js, React.js)
- **Containerization & Orchestration:** Docker, Kubernetes, ECS Fargate

- **Monitoring & Security:** AWS CloudWatch, Prometheus, Kubernetes Alerts (Infra & App Level), IAM Policies, Security Groups
- **Database & Storage:** PostgreSQL, MongoDB, MySQL, SQLite, Redis
- **Machine Learning & Data Engineering:** PySpark, ML Algorithms, Data Pipelines
- **Version Control & Collaboration:** Git, GitHub, Bitbucket

Key Projects

Kubernetes Compliance Platform (Compliance.ai) | DevOps & Cloud Architecture

- Built a **Helm-based deployment architecture** to manage Kubernetes workloads with environment-specific configurations.
- Set up **namespace-level isolation** and Kubernetes resource governance aligned with compliance requirements.
- Implemented **infra-level alerts** (node health, pod restarts, CPU/memory thresholds) and **application-level alerts** (HTTP error rates, service availability).
- Deployed and served the UI using **Cloud CDN**, ensuring high availability and optimized content delivery.
- Ensured **production readiness** through observability, alerting, and automated deployments.

ML_STUDIO: Advanced ML Solutions and Deployment Strategies (Innovatics)

- Designed a **Low-Code ML Framework** enabling rapid model building and deployment.
- Integrated **Big & Small Data Virtualization** for flexible ML model development.
- Implemented **AutoML & Preprocessing** to streamline data preparation.
- Developed a **Dynamic Scaling (Auto Loader) system** for optimizing performance and cost.
- Created a **Cloud-Agnostic & Serverless architecture** supporting **AWS, Azure, and GCP**.
- Ensured **MLOps Integration** for seamless deployment and monitoring.
- Provided **End-Point Customization** for client-specific deployments.
- Implemented **Security Measures** via **API keys** for data protection.
- Maintained **RBI Compliance** through automated model auditing capabilities.
- Designed and implemented **Audit Trail and Audit Reporting features**, enabling traceability of model actions, configuration changes, and deployment activities.
- Built **Compliance Report generation workflows**, supporting regulatory and enterprise governance requirements through automated, structured reporting.

Control Case: Legacy System Modernization (Innovatics)

- Migrated a complex backend system from **Ruby** (9 databases) to **Python**, using **AWS Lambda** for serverless execution.
- Ensured seamless production readiness, reducing technical debt and enhancing maintainability.

TenderHealth: DevOps & Deployment Automation (Innovatics)

- Developed and optimized **CI/CD pipelines** for backend and frontend applications.
- Migrated legacy UI deployment workflows to **Bitbucket Pipelines**, improving speed and reliability.
- Performed **R&D on client-specific tech requirements** for **secure DNS, domain mapping, and static site deployment**.

Iera: CI/CD and Full-stack Support (Innovatics)

- Contributed to both **backend** and **frontend development** for a health platform.
- Built a **Terraform + Jenkins-based CI/CD pipeline** for staging environments, improving deployment efficiency and reducing downtime.

Computer Vision Platform: R&D & Feature Integration (Innovatics)

- Collaborated on **frontend UI integration** and **backend feature enhancements**.
- Led R&D efforts to integrate new capabilities based on evolving product and client needs.

Stock Market Analysis Tool (Razor Edge)

- Developed an AI-driven stock market analytics platform by integrating **ChatGPT API** to convert natural language queries into structured financial expressions for automated calculations.
- Designed a **prompt engineering system** that transformed user inputs into stock-related expressions, enabling **automated trend analysis, backtesting, and portfolio screening**.
- Implemented **real-time stock data processing** for technical indicators (e.g., moving averages, volume trends), **fundamental analysis**, and attribution models.
- Built APIs in **Flask/FastAPI**, deployed on **AWS ECS**, and optimized response times using **caching and parallel processing**.
- Enhanced **user experience and decision-making** by dynamically generating insights in graphical and data-driven formats.

Customer Support System (Razor Edge)

- Built an **AI-powered automated ticket categorization system** using **NLP and ML models** to classify and prioritize support requests.
- Integrated **ChatGPT API** to analyze user queries and route tickets efficiently based on sentiment and intent detection.
- Developed a **real-time notification system** to alert support teams instantly, improving response times and customer satisfaction.
- Designed and deployed the system using **Flask/FastAPI, MongoDB, and AWS ECS**, ensuring scalability and reliability.
- Enhanced operational efficiency by **automating ticket triaging**, reducing manual effort, and optimizing support workflows.

Certifications

- **AWS Certified Solutions Architect – Associate (In Progress)**
- **Python for Everybody Specialization (Coursera)**
- **Data Analysis & Visualization with Python (Coursera)**
- **React.js (Udemy, Project-Based Learning)**
- **Flask Development (Udemy, Self-Learning)**

Achievements

- **Top 60 out of 2000+** in **IBCO LABS IoT Hackathon** for designing a **high-availability cloud architecture**.
- **Developed an AI-powered chatbot** for customer support, improving efficiency by **40%**.
- **Integrated ChatGPT in financial analytics**, enhancing data-driven investment strategies.
- Successfully delivered a **Kubernetes-based compliance platform** with Helm, Cloud CDN, and multi-level alerting, ensuring production-grade reliability and observability.
- Successfully handled a **production AWS security incident**, securing client infrastructure by detecting IAM misuse, rotating leaked credentials, and restoring trust through controlled remediation.
- Delivered **audit and compliance reporting capabilities** for an enterprise ML platform, strengthening governance and regulatory readiness.

Education

Institute of Engineering and Management, Kolkata

B.Tech in Electronics and Communication Engineering | CPI: 8.84 | 08/2018 - 06/2022