# Nishchal Nishant

**Machine Learning Engineer — GenAI & MLOps**

| | | | | +917023605915

## Summary

Machine Learning Engineer with 3+ years of experience building scalable **AI/ML stacks**, **Agentic GenAI systems**, and resilient **MLOps pipelines** at GSK. Expert in Python, SQL, and **Azure Cloud**, with a track record of taking models from experimentation to production. Passionate about designing autonomous multi-agent workflows and optimizing infrastructure costs.

## Skills

| | |
|---|---|
| **Languages** | Python (Advanced), SQL, Bash |
| **Machine Learning** | GenAI, LLMs (GPT-4, Llama), RAG, Multi-Agent Systems, Scikit-learn, TensorFlow, PyTorch |
| **MLOps & Cloud** | Azure (AKS, ADF, Functions, AML), Docker, Kubernetes, Airflow, MLFlow, Feast (Feature Store) |
| **Tools** | LangChain, Semantic Kernel, Terraform, Git, GitHub Actions, Prometheus, Grafana |

## Work Experience

**Engineer — GSK (EDAP)** Jun 2024 – Present

- **Market Navigator (GenAI Platform):** Architected an Enterprise GenAI platform to automate marketing product launches. Designed a **multi-agent orchestration layer** (using Semantic Kernel) that autonomously generates, validates, and refines content based on regional data, reducing planning time by 40%.
- **Autonomous Infrastructure Agent:** Developed an LLM-based agent to manage user-provisioned Azure resources. The agent validates inputs via REST API and dynamically generates Terraform code to resolve provisioning issues without human intervention.

**Senior Associate Engineer — GSK** Jul 2022 – Jun 2024

- **Synthetic Data Pipeline (Clinical Trials):** Implemented a **CTGAN** pipeline to generate high-fidelity synthetic data from historical clinical trials. Solved critical data scarcity issues for downstream analytics while ensuring strict adherence to patient privacy regulations (GDPR/HIPAA).
- **Feature Store Implementation:** Led the POC and implementation of scalable feature stores for the Global Supply Chain. Extensively utilized **Feathr** and evaluated Feast/Vertex AI to standardize ML feature engineering across the enterprise.
- **MLOps Reliability:** Enhanced the internal data integration tool (**CoDI**) by optimizing Apache Airflow DAGs. Implemented fault-tolerant retry mechanisms that ensured 99.9% job success rates even during Azure pod failures.
- **Data Engineering Automation:** Developed automated dashboards and ETL pipelines for the Third Party Security Risk Management (TPSRM) team, significantly reducing manual reporting overhead.

## Open Source & Community

**DriftDetector — End-to-End MLOps System with Drift-Aware Retraining:**
Built a production-ready MLOps pipeline on Azure ML and AKS, enabling real-time anomaly detection, feature store–backed inference, and automated retraining triggered by data drift. Applied MLOps best practices including IaC (Terraform), CI/CD, model versioning, monitoring, and Kubernetes-based scaling.

**Machine Learning & AI Knowledge Base** [View Project]
Created and maintained a comprehensive technical documentation repository on GitBook. The project covers deep learning architectures, MLOps best practices, and AI implementation patterns, serving as a reference guide for engineering teams and the open-source community.

## Education

2018 – 2022 B.Tech in Information Technology — **BIT Mesra, Ranchi** **GPA: 7.9/10.0**

## Certifications

**NLP Specialization** (DeepLearning.AI) Certificate URL
**GANs Specialization** (DeepLearning.AI) Certificate URL
**Deep Learning Specialization** (DeepLearning.AI) Certificate URL
**TensorFlow Developer** (DeepLearning.AI) Certificate URL
**Machine Learning on Google Cloud** Certificate URL