

About ActiveSkyGate



ActiveSkyGate is a globally recognized, ISO-certified EdTech leader. We specialize in delivering live, career-defining training in emerging and enterprise-ready technologies — bridging the gap between what the industry demands and what available Talent.

We focus on three core pillars:

Certification Programs: Co-delivered with global certifying bodies like Microsoft, Scaled Agile, and Kanban University, ensuring credibility and global recognition.

Industry-Led Bootcamps: Designed in collaboration with top-tier practitioners and academic leaders, our bootcamps offer project-based learning aligned with real job roles.

Career Acceleration & Interview Prep: Including personalized coaching, mock interviews, and portfolio development to help learners land high-impact roles across industries.

Our Expertise - From Artificial Intelligence, Agentic AI, and Generative AI to Cloud, Cybersecurity, Project Management, and Agile methodologies, ActiveSkyGate offers a catalog of 200+ cutting-edge courses — all taught 100% live, supported by mentors, capstones, and real-world use cases.

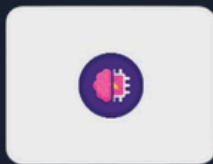
Whether you're a corporate team looking to upskill at scale, or a new graduate preparing for your first role, our programs are built to deliver industry-readiness from Day 1.

Our Impact - With over 25,000 professionals trained and 1,000+ enterprise teams empowered, ActiveSkyGate is not just another EdTech company — we are a strategic capability partner to some of the world's most ambitious individuals and organizations.

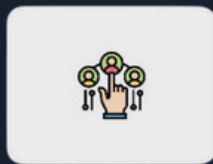
Our Training Programs Cover



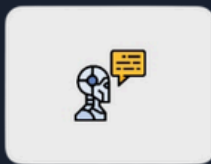
Centre of Excellence



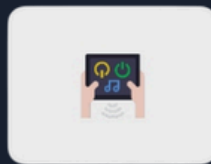
Machine Learning
& AI



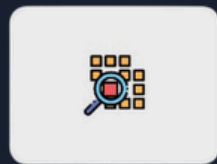
Microservices



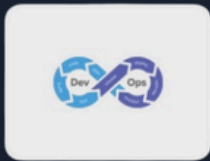
Robotic-Process
Automation



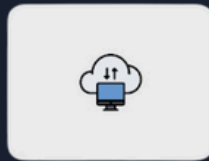
Internet of Things



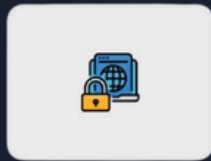
Big Data Analytics



DevOps



Cloud Computing



Cyber Security



Professional
Development



BI
Technology

MLOps and LLMOps BootCamp



Duration: 60 hours of live instructor-led training

Course Overview

MLOps Engineer is one of the fastest-growing roles in tech today, with salaries ranging from \$130K to \$180K globally. Companies across cloud, fintech, and enterprise AI are actively hiring, and the supply of engineers who can bridge ML and production infrastructure is still far behind demand.

Most companies are sitting on ML models that never make it to production. Building a model is the easy part — keeping it reliable, scalable, and monitored in production is where most teams fail. Engineers who can own the full production stack are becoming essential. This bootcamp teaches you how to build and operate production-ready ML systems.

Program Highlights

- ✓ Build end-to-end ML pipelines from data ingestion to production deployment
- ✓ Automate model training, testing, and deployment using CI/CD with GitHub Actions
- ✓ Track and reproduce ML experiments using MLflow, DVC, and DagsHub
- ✓ Containerize and orchestrate ML applications using Docker and Kubernetes
- ✓ Deploy production-ready ML models on GCP using Vertex AI
- ✓ Monitor model performance, detect data drift, and set up alerts using Grafana and Prometheus
- ✓ Orchestrate automated ML workflows and retraining pipelines using Apache Airflow
- ✓ Build, deploy, and monitor production-ready LLM applications using LLMOps best practices
- ✓ Apply real-world use cases — fraud detection and product recommendation — as capstone projects
- ✓ Productize ML systems and prepare for enterprise-grade MLOps roles

DETAILED CURRICULUM : MODULES

Module 1: Python Programming Foundations

Subtopics:

- Variables & Data Types
- Operators
- Conditional Statements (if-else)
- Loops (for, while)
- Functions
- Lists, Tuples, Dictionaries

Learning Outcomes:

- Write structured Python programs and develop logical thinking for ML workflows.

Hands-on/Lab:

- Mini programs like Bank Account Management System, Inventory Management system

Module 2: Python Libraries for Data Science

Subtopics:

- NumPy (arrays, vectorization)
- Pandas (DataFrames, data cleaning)
- Data Visualization (Matplotlib, Seaborn)

Learning Outcomes:

- Manipulate, analyze, and visualize structured datasets efficiently.

Hands-on/Lab:

- Perform EDA on realworld dataset and create visual dashboards.

Module 3: Statistics for Data Science

Subtopics:

- Mean, Median, Mode
- Variance & Standard Deviation
- Probability Basics
- Normal Distribution
- Correlation & Covariance

Learning Outcome:

- Understand descriptive statistics required for ML model building.

Hands-on/Lab:

- Compute statistical measures using Python.

Module 4: Machine Learning (Supervised & Unsupervised)

Subtopics:

- Regression Algorithms (Linear Regression, Decision Tree, Random Forest etc.)
- Classification Algorithms (Naïve Bayes, Ensemble learning etc.)
- Clustering (KMeans)
- Model Evaluation Metrics

Learning Outcome:

- Build and evaluate ML models using scikitlearn.

Hands-on/Lab:

- Train classification and regression models in Python

Module 5: Deployment using VSCode, GitHub & Streamlit Cloud

Subtopics:

- VSCode Project Structure
- GitHub Repository Setup
- Streamlit App Development

Learning Outcome:

- Deploy ML models as interactive web applications.

Hands-on/Lab:

- Deploy a trained ML model using Streamlit.

Module 6: Code Versioning with Git

Subtopics:

- Git Basics
- Branching & Merging
- GitHub Collaboration

Learning Outcome:

- Manage and version ML code efficiently.

Hands-on/Lab:

- Create repository, manage branches, resolve merge conflicts.

Module 7: CI/CD with GitHub Actions

Subtopics:

- CI/CD Principles
- GitHub Actions Workflow YAML
- Automated Testing

Learning Outcome:

- Automate ML workflows triggered by Git commits.

Hands-on/Lab:

- Create CI pipeline to autotest and build ML project.

Module 8: Experiment Tracking with MLflow

Subtopics:

- MLflow Tracking
- Logging Parameters & Metrics
- Model Registry
- Google Kubernetes Engine (GKE)

Learning Outcome:

- Track and manage ML experiments professionally.

Hands-on/Lab:

- Log experiments and compare multiple model runs.

Module 9: Data Versioning with DVC

Subtopics:

- DVC Basics
- Remote Storage Setup
- Reproducible Pipelines

Learning Outcome:

- Version datasets and reproduce ML pipelines.

Hands-on/Lab:

- Track dataset using DVC and reproduce experiment.

DETAILED CURRICULUM : MODULES

Module 10: Dagshub Integration (Git + DVC + MLflow)

Subtopics:

- Centralized ML Collaboration
- Integrating Code, Data & Experiments

Learning Outcome:

- Collaborate on ML projects with unified version control and tracking.

Hands-on/Lab:

- Push integrated ML project to Dagshub.

Module 11: Docker & Containerization

Subtopics:

- Docker Architecture
- Writing Dockerfiles
- Containerizing ML Apps

Learning Outcome:

- Create portable ML environments using containers.

Hands-on/Lab:

- Containerize ML inference application.

Module 12: Apache Airflow

Subtopics:

- DAG Concepts
- Scheduling ML Pipelines
- Automating Retraining

Learning Outcome:

- Orchestrate ML workflows with Airflow.

Hands-on/Lab:

- Build automated ML training DAG.

Module 13: Kubernetes

Subtopics:

- Kubernetes Basics
- Pods & Services
- Deploying Containerized ML Apps

Learning Outcome:

- Scale ML applications using Kubernetes.

Hands-on/Lab:

- Deploy ML container on Kubernetes cluster.

Module 14: Monitoring with Grafana

Subtopics:

- Monitoring Concepts
- Prometheus Integration
- Dashboards & Alerts

Learning Outcome:

- Monitor production ML systems effectively.

Hands-on/Lab:

- Visualize ML metrics using Grafana dashboards.

Module 15: AWS, Azure, GCP, Vertex for MLOps

Subtopics:

- Introduction to AWS, Azure, and Google Cloud for ML workloads
- Compute, storage, and managed ML services across cloud platforms
- Overview of SageMaker, Azure ML, and Vertex AI
- Deploying ML models on cloud infrastructure
- Managing scalable inference and ML pipelines in the cloud

Learning Outcome:

- Understand how to deploy, manage, and scale machine learning systems on AWS, Azure, and GCP using modern cloud-based MLOps services.

Hands-on/Lab:

- Deploy a Dockerized ML model on cloud infrastructure and test cloud-based inference using managed ML services.

Module 16: LLMOps (Large Language Model Operations)

Subtopics:

- Introduction to LLMs and Foundation Models
- Prompt Engineering Basics
- RAG (Retrieval Augmented Generation)
- LLM Monitoring & Evaluation
- Deploying LLM Applications

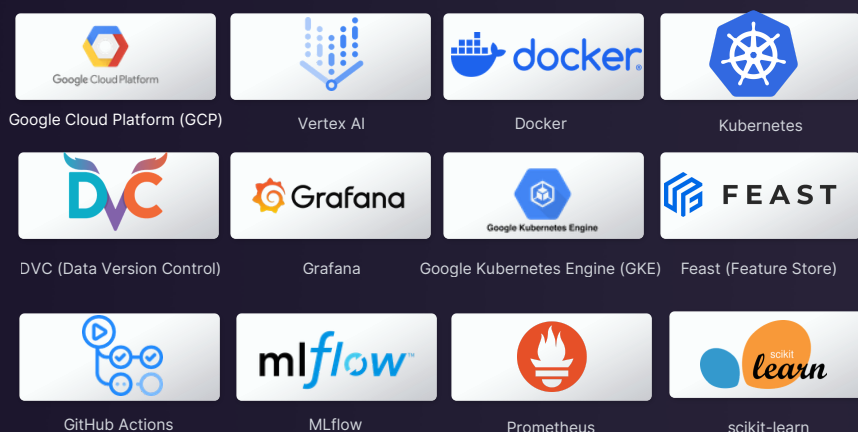
Learning Outcome:

- Build, deploy, and monitor productionready LLM applications.

Hands-on/Lab:

- Build a simple RAG based chatbot and deploy it as an API.

Tools Covered:



Projects

- **Project 1:** Mini programs like Bank Account Management System, Inventory Management system.
- **Project 2:** Perform EDA on real-world dataset and create visual dashboards.
- **Project 3:** Compute statistical measures using Python.
- **Project 4:** Train classification and regression models in Python.
- **Project 5:** Deploy a trained ML model using Streamlit.
- **Project 6:** Create repository, manage branches, resolve merge conflicts.
- **Project 7:** Create CI pipeline to auto-test and build ML project.
- **Project 8:** Log experiments and compare multiple model runs.
- **Project 9:** Track dataset using DVC and reproduce experiment.
- **Project 10:** Push integrated ML project to Dagshub.
- **Project 11:** Containerize ML inference application.
- **Project 12:** Build automated ML training DAG.
- **Project 13:** Deploy ML container on Kubernetes cluster.
- **Project 14:** Visualize ML metrics using Grafana dashboards.
- **Project 15:** Deploy a Dockerized ML model to GCP and test cloud-based inference.
- **Project 16:** Build a simple RAG-based chatbot and deploy it as an API.

Capstone Project:

Build a complete, automated MLOps system on GCP for a real-world problem "Fraud Detection"

- Build an end-to-end automated MLOps pipeline on GCP for a real-world fraud detection use case.
- Cover model training, deployment, monitoring, and retraining using production-ready workflows.

Build a complete, automated MLOps system on GCP for a "Product Recommendation"

- Build an end-to-end MLOps pipeline on GCP for a real-world product recommendation system.
- Automate training, deployment, and monitoring in a true production setup.