Operational AI COURSE Contents (5 Days)

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Prerequisites

- Good understanding on Machine Learning and Deep Learning
- Coding experience on Python programming

Learning Objectives

- Understand the need for MLOps in the world of data science
- Familiarise yourself with Docker and the need for containerisation
- Become familiar with DVC and MLOPS and its various components
- Build data ingestion, validation pipelines
- Build orchestrated ML pipelines
- Gain a deep understanding of Kubernetes clusters and how they operate
- Deploy models in the cloud platforms

COURSE CONTENTS

Operational AI Introduction and Environment Setup

Model artifacts management using Git

Python & Flask

Strategy, Environment overview

Model Deployment Architectures

Model Deployment Pipeline

Model & RESTful web services

INTRODUCTION
GIT
DVC
GITHUB FLOW
FLASK DEPLOYMENT
FAST API
DATA CONTAINERS
MODEL DEPLOYMENT ARCHITECTURE
PIPELINES
FEATURE ENGINEERING
FEATURE SELECTION
HYPER PARAMETER
HYPER PARAMETER TUNING
CREATING PIPELINE BASED PROJECT
DATA SELECTION
DATA VALIDATION
HYPER SEARCH

ML TO GITHUB
RETAINING PHRASE

SERVICES

DATA INJESTION
DATA VALIDATION
DATA CONTAINERISATION

Introduction to MLFLOW
MODEL VERSIONING
MLFLOW PROJECT

HYPER PARAMETER TUNING
NEURAL SEARCH
HYPER PARAM SEARCH

Model Performance Monitoring

Pre-Production

Post-Production

Pipeline Setup

Model Retraining

Automated and AutoML Techniques

Model Versioning

Configuration Management