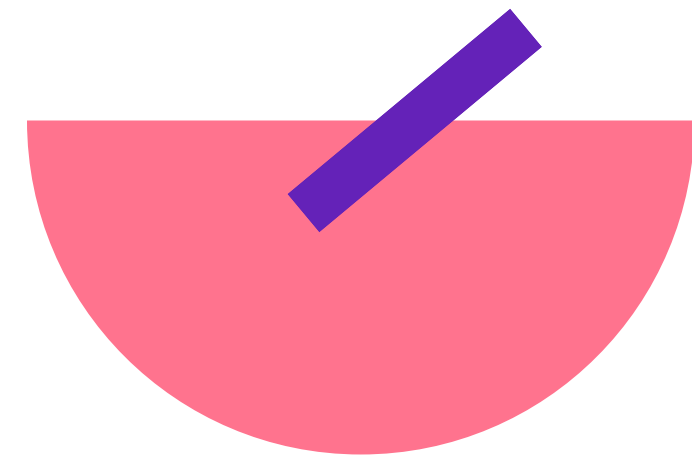




Orientation Class

By Nurul Akter Towhid





Introduce Yourself



By Nurul Akter Towhid



Course Overview



By Nurul Akter Towhid



Week 1: Get into MLOps

- Course Overview
- Introduction to MLOps
- Preparing the environment for the course
- Dataset discussion
- EDA to gain insight



Week 2–3: Exploring Data & Deriving Information

- Understanding the project's scope
- Deep dive into the dataset
- Data quality check
- Handling missing values
- Feature engineering for machine learning
- Applying machine learning using scikit-learn/TensorFlow
- Evaluate and interpret the model
- How can we make decisions from the model's output



Week 4–6: Building a Data Pipeline

- Workflow orchestration
- Understanding our data pipeline
- Turning our notebook into a pipeline
- Deployment of the data pipeline using Airflow
- Data versioning using DVC
- Testing the data pipeline



Week 7–9: Deploying & Monitoring Model

- ML experiment tracking using MLFlow
- Deploy the model
- Getting the model's output
- Model Monitoring
- Running full project



Course Logistics



By Nurul Akter Towhid

Class Time & Others

- Every Saturday 9:00 to 10:00 PM (+ 40 mins)
- If you miss the class don't worry we will share the recorded class
- If I miss any class CR will share the info
- Also every week I will record and share video tutorials
- You guys need to create your own git repo to share everything you learning and practicing.
- Respect everyone



Introduction to MLOps



By Nurul Akter Towhid



What is MLOps?

MLOps is a core function of Machine Learning engineering, focused on streamlining the process of taking machine learning models to production and then maintaining and monitoring them.

MLOps stands for Machine Learning Operations.

Maturity of one's MLOps

level			level		
Microsoft	0	No MLOps	0	Google	
	1	DevOps, no MLOps			
	2	Automated training	1		
	3	Automated model deployment			
	4	Full MLOps Automated Operations	2		



Tools for MLOps

- Experiment tracking: MLflow
- Dataset versioning: DVC
- Workflow management: Apache Airflow
- CI/CD: Github actions
- ML model training: Tensorflow, scikit-learn
- API: Flask
- Containerization: Docker
- Monitoring: Evidently

*Thank
You*



THANK
YOU
FOR
YOUR
ATTENTION