**MLOps Zoomcamp Training**

**with NYC Taxi Trip Duration Prediction**

Course Catalog:

* Setting up github codespace with VS code for local development
* Setting up EC2 instance with remote connetion for local IDE
* MLFlow for Expermient Tracking and Model Management

**MLOps Maturity Model**

Set of Specifications that defines gaps between incremental steps to take a `No MLOps` model to a `Full MLops Automated re-training model`

<https://learn.microsoft.com/en-us/azure/architecture/ai-ml/guide/mlops-maturity-model>

**Github Codespace**

* Sets up a cloud machine managed by github
* Provides environment (i.e. Linux) for model development
* Automated intial setup for repository
* Coding environment can be managed through IDE web-browser or Desktop.
* Cost: free for 120 hours a month and then chargable for a particual setting machine.

**AWS EC2 Instance for remote development**

* Set up and EC2 instance with Ubuntu OS
* Install Conda, Docker and other dependencies for model development and deployment
* Connect to a local IDE like VS Code for coding environment.

*How is it different then using Sagemaker Studio Jupyter notebook?*

* More customizable development environment.
* Ideal for development heavy tasks but use notebooks instance for rapid prototyping
* If cpu, gpu or intensive tasks use EC2 instances with big machines.