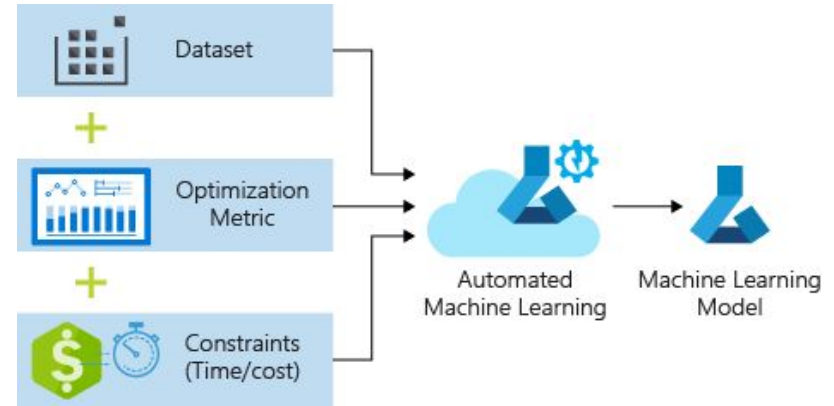BTP-2

LoCoML: Towards development of a low code ML platform

Project Team:
Ayush Agrawal
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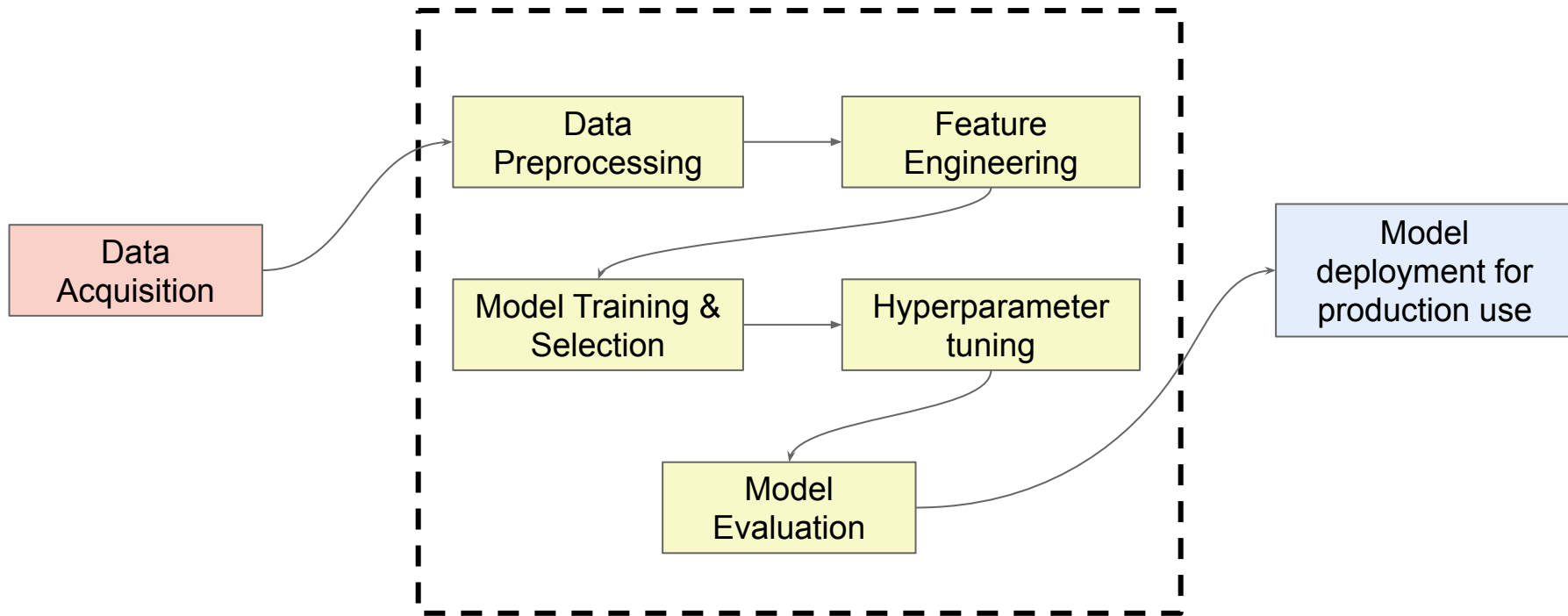
Project Guide:
Dr. Karthik
Vaidhyanathan

What is low code ML?

- Provides an easy and efficient way to build ML models

- Enables users with limited ML experience to train high quality models specific to their needs.

- It incorporates automation features for various stages of the ML pipeline, such as data preprocessing, feature engineering, model training and so on.

Traditional ML vs AutoML

Traditional Approach

Data Acquisition

Data Preprocessing → Feature Engineering

Model Training & Selection → Hyperparameter tuning

Model Evaluation

Model deployment for production use

AutoML automates the various steps

Tasks Completed before Mid Evals

01
Data Ingestion
Users can upload csv files from local machine

02
EDA
Users can see a quick exploratory analysis of the columns of selected data

03
Data Preprocessing
Providing options to preprocess data

04
Training the models
Users can select autoML mode with appropriate manual control wherever required

05
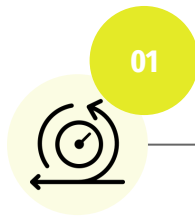**Model Evaluation**
Model is evaluated on a number of metrics

Demo

Advantages of Low Code ML

01

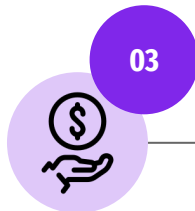**Faster Development**
Quickly develop ML models from concept

02

Accessibility
Accessible to a broad range of users

03

Cost-Effective
Reduces the need of specialized ML Devs
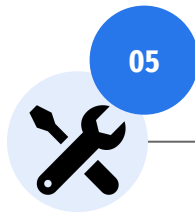
Low Code ML

04

Rapid Prototyping
Facilitates rapid prototyping and experimentation

05

Maintenance
Enables to track model performance

06

Quick Proof of Concept
Ideal for developing quick proof of concepts

Tasks completed after Mid Evals

Dashboard
Added overall statistics of the platform

01

Model Cards
Designed a compact representation of model info

02

Model Deployment
Successfully able to deploy model on a docker container

03

Visualizations
Added graphs and visualizations for models

04

Model Versioning
Implemented various methods to update model & version them

05

Inference
Implemented single case & batch inference to get predictions instantly

06

ML for all

Thank You