Cloud Deploy: Machine Learning for Minimum Viable Model (MVM)

Cloud Deploy: Machine Learning for Minimum Viable Model (MVM) helps customers develop an initial machine learning model running on TensorFlow and Google Cloud Platform to demonstrate proof-of-concept modeling of a specific business use case. Google will guide customers on the iterative process for developing an initial model that demonstrates the feasibility of a solution addressing a business use case.

Key Activities

Data Exploration Guidance
Analyze available data sources to assess state of data and potential usefulness in applying in an ML model.

- Analyze data characteristics
- Assess data quality, cleanliness, potential correlation, and patterns
- Check for class imbalance
- Validate hypothesis relative to data

Algorithm Selection
Research modeling strategies to determine appropriate ML selection algorithm to address business problem.

- Research existing strategies and whitepapers
- Select known algorithms based on hypothesis, type of features, patterns in data
- Document decisions related to algorithm usage

Feature Engineering
Create ML model features based on raw data analysis and tests.

- Use domain knowledge to identify potential features
- Advise on transformation of raw data into feature recommendations
- Recommend new features, and remove redundant/duplicate features and highly correlated features

Initial Model Development
Develop an initial ML model using the data to solve the business problem, and iterate.

- Define the right modeling strategy and choose the right ML algorithms
- Select data set for training, test set, and validation
- Develop initial model to prove conceptual potential
- Determine duration and amount of data for initial experiment
- Evaluate and visualize model result
- Recommend corrective actions to improve model
- Iterate and improve model results

Deliverables
- Preliminary machine learning model through an iterative process

Scope and Pricing
- Up to 64 FTE days engagement (on-site or offsite at Google's discretion) within a two-month period
- Additional monthly units of service may be required, depending on customer's business use case or level of data quality
- Out of scope examples: building a complete data pipeline, deploying the model into production, converting the model into an API
- Pricing will be agreed upon by customer and Google and specified in the applicable Ordering Document