

# Machine Learning in the Enterprise

Readings and Videos

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Module 1: Understanding the Machine Learning Enterprise Workflow

**ML Workflow** 

The Seven Steps of Machine Learning

Basics of Data Science Product Management: The ML Workflow

Building ML Workflows using Cloud Composer

The Machine Learning Workflow

## Module 2: Data in the Enterprise

**Data Collection and Evaluation** 

Google Cloud Data Catalog essentials: Data Discovery

Google Cloud Data Catalog hands-on guide: a mental model

Data Catalog

Google Cloud Data Analytics 2021: The year in review

<u>Cloud Dataprep Tutorial - Getting Started 101</u>

Advanced Data Cleanup Techniques using Cloud Dataprep (Cloud Next '19)

Google Cloud Data Analytics Services (BigQuery, Dataprep, Looker, Dataplex, Analytics Hub)

Analytics Hub

Analytics Hub in a Minute

### **Dataplex**

Breaking data silos with Dataplex

Building a Modern Digital Enterprise with Google Cloud Data Fusion

Introduction to Vertex AI Feature Store

Vertex Al Feature Store

# Module 3: The Science of Machine Learning and Custom Training

Intuitions on L1 and L2 Regularisation

Regularization for Sparsity: L<sub>1</sub> Regularization

Regularization for Sparsity

<u>Understanding Logistic Regression</u>

**Logistic Regression** 

A Gentle Introduction to Cross-Entropy for Machine Learning

Create a model using custom training

Create a custom training job in Vertex Al

Build a Custom Model with Vertex AI Platform

## Module 4: Vertex Vizier Hyperparameter Tuning

Vertex Vizier Hyperparameter Tuning

Overview of Hyperparameter Tuning

Hyperparameter Tuning on Vertex Al

Hyper-parameter optimization algorithms: a short review

**Hyperparameter Tuning** 

# Module 5: Prediction and Model Monitoring using Vertex Al

**Vertex Al Model Monitoring** 

Building ML pipelines with Google Cloud's Vertex AI: On-Demand Webinar | Watch On-Demand

Monitor Models For Training-Serving Skew With Vertex Al

Vertex Al Model Monitoring Colab

Managing ML Lifecycles with Vertex Al

Monitoring feature attributions: How Google saved one of the largest ML services in trouble

#### Module 6: Vertex Al Pipelines

Vertex Al Pipelines Use Case

**Building a Vertex AI Pipeline** 

<u>Introduction to MLOps and Vertex AI Pipelines</u>

Simple TFX Pipeline for Vertex AI Pipeline

Vertex Al Training and Serving with TFX and Vertex Pipelines

#### Module 7: Best Practices for Machine Learning Development

Best Practices for Implementing Machine Learning on Google Cloud

People + Al Guidebook

Rules of Machine Learning

Machine Learning Crash Course