

# Google Cloud Platform Big Data and Machine Learning Fundamentals

## Course Contents-

### Module 1: Introducing Google Cloud Platform

- Google Platform Fundamentals Overview
- Google Cloud Platform Big Data Products

### Module 2: Compute and Storage Fundamentals

- CPUs on demand (Compute Engine)
- A global filesystem (Cloud Storage)
- CloudShell
- Lab: Set up a Ingest-Transform-Publish data processing pipeline

### Module 3: Data Analytics on the Cloud

- Stepping-stones to the cloud
- Cloud SQL: your SQL database on the cloud
- Lab: Importing data into CloudSQL and running queries
- Spark on Dataproc
- Lab: Machine Learning Recommendations with Spark on Dataproc

### Module 4: Scaling Data Analysis

- Fast random access
- Datalab
- BigQuery
- Lab: Build machine learning dataset

### Module 5: Machine Learning

- Machine Learning with TensorFlow
- Lab: Carry out ML with TensorFlow
- Pre-built models for common needs
- Lab: Employ ML APIs

## **Module 6: Data Processing Architectures**

- Message-oriented architectures with Pub/Sub
- Creating pipelines with Dataflow
- Reference architecture for real-time and batch data processing

## **Module 7: Summary**

- Why GCP?
- Where to go from here
- Additional Resources