

# TensorFlow on Google Cloud

## Readings and Videos

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### Module 1: Introduction to the TensorFlow Ecosystem

[Introduction on TensorFlow 2.0](#)

[Getting started with TensorFlow 2](#)

[ASL Webinar: TensorFlow with Ryan Giliard](#)

[Introduction to TensorFlow 2.0: Easier for beginners, and more powerful for experts \(TF World '19\)](#)

[Machine Learning - Zero to Hero](#)

[Demonstration of TensorFlow Feature Columns \(tf.feature\\_column\)](#)

[Introduction to Tensors](#)

[Introduction to Tensors and its Types](#)

[Tensorflow Records? What they are and how to use them](#)

[TFRecord and tf.train.Example](#)

[Hands on Tensorflow Data Validation](#)

[Using Tensorflow's Feature Column API for Feature Engineering](#)

### Module 2: Design and Build an Input Data Pipeline

[Demonstration of TensorFlow Feature Columns \(tf.feature\\_column\)](#)

[Using Tensorflow's Feature Column API for Feature Engineering](#)

[tf.data: Build TensorFlow input pipelines](#)

[Inside TensorFlow: tf.data - TF Input Pipeline](#)

[TensorFlow Datasets](#)

[Inside TensorFlow: tf.data + tf.distribute](#)

[Designing a neural network | Text Classification Tutorial Pt. 2 \(Coding TensorFlow\)](#)

## **Module 3: Building Neural Networks with the TensorFlow and Keras API**

[Machine Learning - Zero to Hero](#)

[Introduction to TensorFlow 2.0: Easier for beginners, and more powerful for experts \(TF World '19\)](#)

[How to Use the Keras Functional API for Deep Learning](#)

[3 ways to create a Keras model with TensorFlow 2.0 \(Sequential, Functional, and Model Subclassing\)](#)

[Tf.keras - part 1](#)

[Tf.keras - part 2](#)

[The Keras Functional API](#)

[Guide to the Functional API](#)

[Developing with the Keras Functional API](#)

[Google: Regularization for Simplicity](#)

[Google Machine Learning Glossary](#)

[Regularization Clearly Explained](#)

[Lasso and Ridge Regression](#)

[Ridge Regression](#)

[A Gentle Introduction to Early Stopping to Avoid Overtraining Neural Networks](#)

## **Module 4: Training at Scale with Vertex AI**

[Train TensorFlow Models at Scale](#)

[Scaling TensorFlow 2 models to multi-worker GPUs more powerful for experts \(TF World '19\)](#)

[Training at Scale](#)

[Distributed Training with TensorFlow](#)