

Module 3 Readings: Computer Vision Fundamentals on Google Cloud

Here are the assembled readings provided in Module 3.

Module 3: Custom Training with Linear, Neural Network and Deep Neural Network models

- Lesson 1: Introduction
 - TensorFlow dataset
- Lesson 3: Reading the Data
 - o tf.io
 - tf.image
 - o tf.data.Dataset
 - tf.data.TextLineDataset
 - o tf.data.Dataset.list files
 - tf.data.FixedLengthRecordDataset
 - TensorFlow documentation
- Lesson 4: Implementing Linear Models for Image Classification
 - o tf.keras.Model
 - o The Functional API
 - o Compile
 - o Optimizer
 - Loss function
 - o <u>Metrics</u>
- Lesson 5: Neural Networks and Deep Neural Networks for Image Classification
 - Commonly Used Activation Functions
 - o Model.compile
- Lesson 6: Deep Neural Networks with Dropout and Batch Normalization
 - universal approximation theorem
 - o The Geometric Occam's Razor Implicit in Deep Learning
 - Dropout: A Simple Way to Prevent Neural Networks from Overfitting
- Additional Resources
 - Machine Learning on Google Cloud