2018 Asia University AI Summer Program (Day4-July6) B: ML/DL

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Content

- Deep Learning Framework
- TensorFlow toolkits
- One hot encoding

Deep Learning Framework

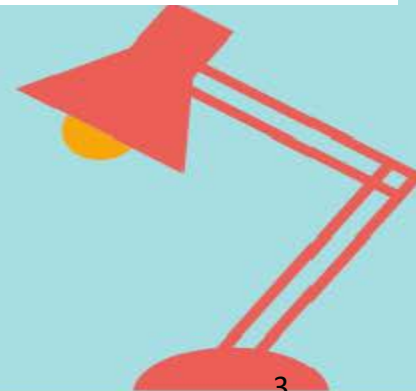# Keras: The Python Deep Learning library

- https://github.com/keras-team/keras
- Keras models
  - the Sequential model
  - the Model class used with the functional API.
- keras-resnet
  - https://github.com/raghakot/keras-resnet

Keras

Current hierarchy of TensorFlow toolkits

TensorFlow Estimators ← High-level, object-oriented API

tf.layers, tf.losses, tf.metrics ← Reusable libraries for common model components

Python TensorFlow ← Provides Ops, which wrap C++ Kernels

C++ TensorFlow

CPU GPU TPU ← Kernels work on one or more platforms
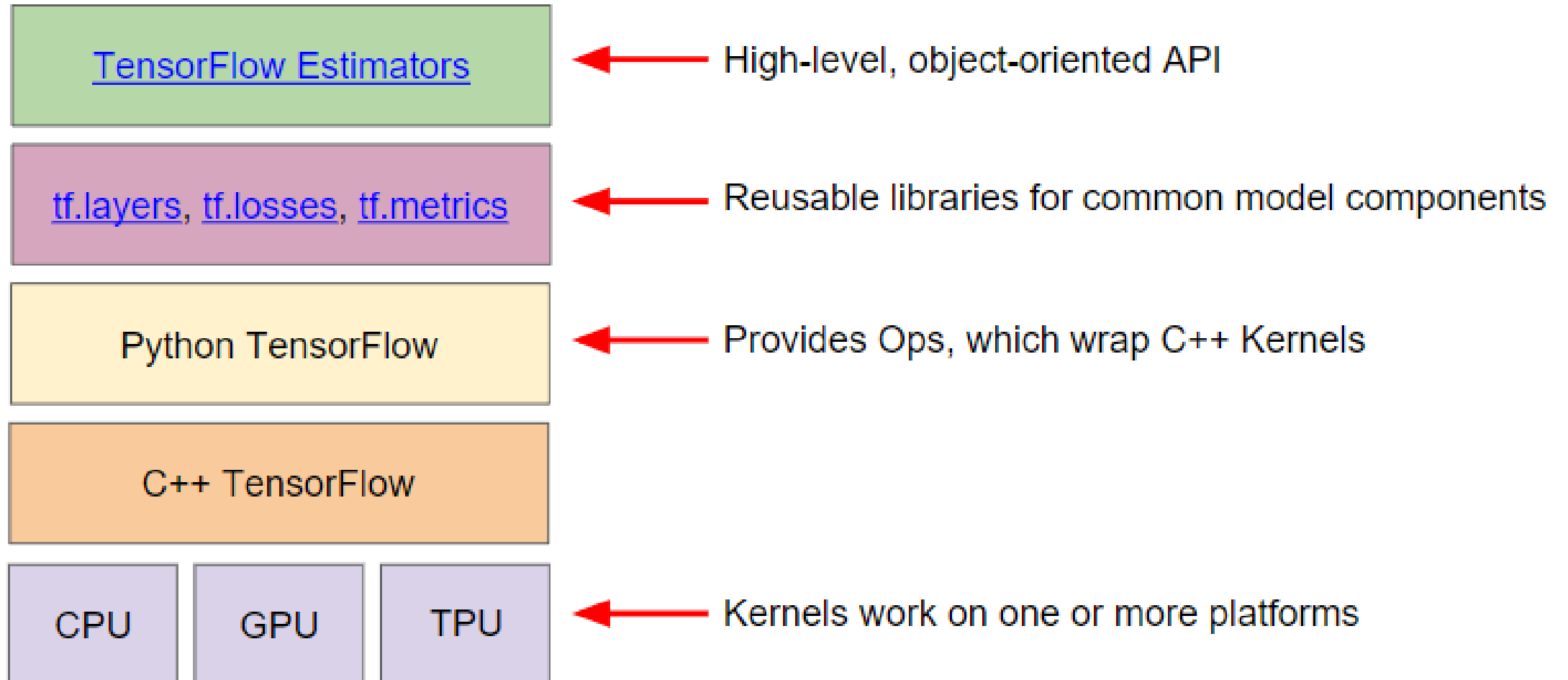
One hot encoding

Color
Red
Red
Yellow
Green
Yellow
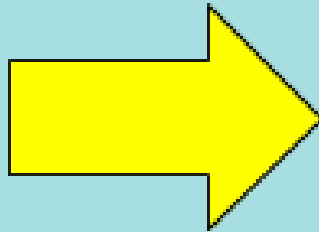
Red	Yellow	Green
1	0	0
1	0	0
0	1	0
0	0	1

Thanks! Q&A