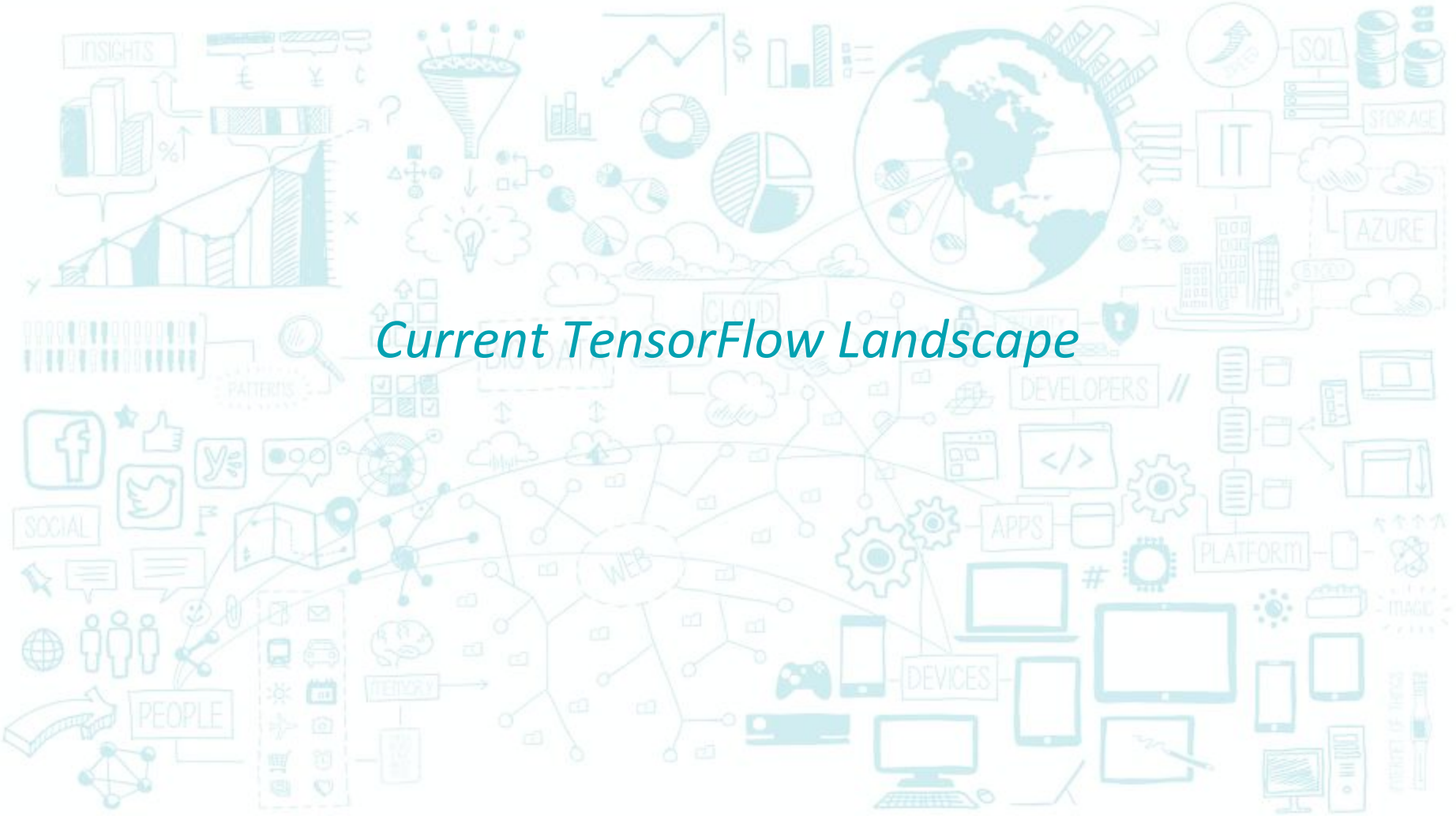
TensorFlow Landscape and Horizon

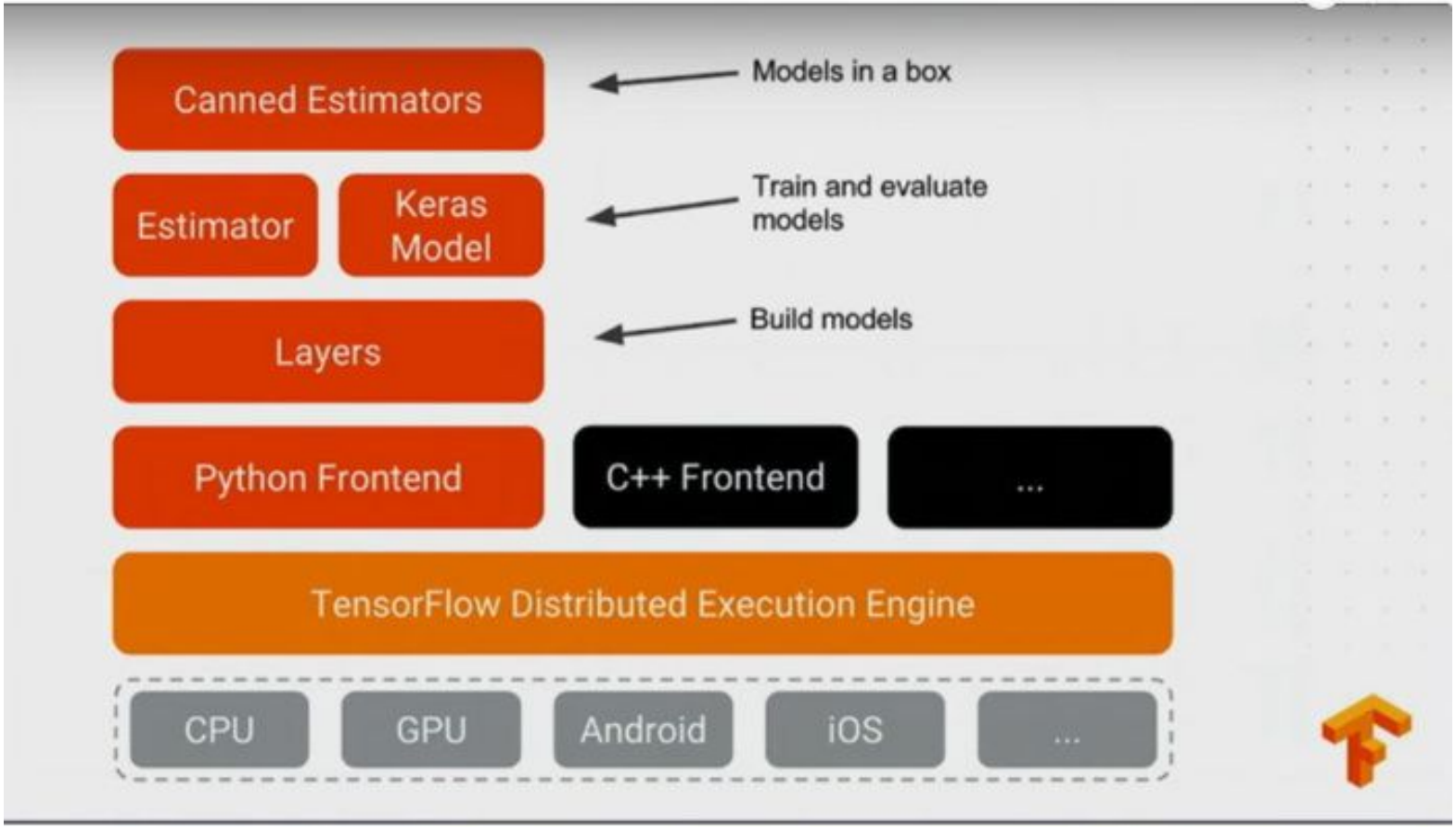
Agenda

1. The Current TensorFlow Landscape
2. Things on the Horizon



Current TensorFlow Landscape

Google: TensorFlow



Source: Google

Keras 2 and TensorFlow

- Keras Provides a high level API to interact with Tensorflow (and Torch and *recently* CNTK)
- Can serve as a higher level abstraction than tf.layers, but lower than tf.Estimators
- Most popular prototyping framework

TensorFlow's tf.contrib.learn

- Basically scikit-learn-ish interface to TensorFlow
- Currently supported estimators include:
  - K-means
  - Linear/Logistic Regression
  - SVM
  - Canned DNN (Deep Neural Networks) for regression/classification

Other Key Additions

- MPI functionality brought to TF
- Interesting to see how gRPC performs when compared to MPI with TensorFlow
- TensorFlow XLA which brings the ability to compile TensorFlow code (depending on your model it can cause increased performance)

On the Horizon

TensorFlow’s tf.contrib.learn

- Tensorflow has committed to adding more and more canned estimators
- Currently scheduled estimators include:
  - Random Forests
  - Wide and deep models
  - RNN-based estimators

More Key Features

- Tensorflow is currently working on adding additional support to their mobile offering (with more examples, etc)
- Currently adding RDMA support in 1.2rc2
- Additional support for distributed TF
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Questions?
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