Tensorflow Chapter 1

ML steps could be iterated over and over again

1. Understanding / Exploring the data
2. Cleaning the data
3. Feature Engineering
4. Modelling
5. Evaluation
6. Creating user interface

Implementing probabilistic ML models: <https://www.tensorflow.org/probability>

Computer Graphic related computation: <https://www.tensorflow.org/graphics>

Reusing pre-trained models: <https://www.tensorflow.org/hub>

Visualize/Debug Tensorflow models <https://www.tensorflow.org/tensorboard>)

Consume data: tf.data or tensorflow.data <http://www.tensorflow.org/guide/data>

When to use tensorflow?

1. If your model can take advantage of low-level operations (Kernels) then tensorflow is a good option.
2. Create tensorboard to log performance metrics.
3. When we need to feed large amount of data to data pipeline then we can use tensorflow.

When not to use?

1. Implementing traditional ML models
2. ML algos: <https://xgboost.readthedocs.io/en/latest/> , <https://scikit-learn.org/stable/> , <https://www.tensorflow.org/tutorials/estimator/boosted_trees> , GPU adapted ML models (<https://rapids.ai> )
3. Manipulating and analyzing small datasets
4. Creating complex NLP pipelines (use <https://spacy.io/> )

What this book will teach?

1. Tensorflow fundamentals
2. Deep learning algorithms
3. Monitoring and optimization

