# Tensor Flow cheat sheet

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# 1 Data Prepocessing

### 1.1 Feature columns

#### tf.feature\_column

- tf.feature\_column.numeric\_column(colname)
- tf.feature\_column.bucketized\_column(tf.feature\_coumn.numeric\_column, boundaries\_list)
- tf.feature\_column.categorical\_column\_with\_identity(colname, num\_buckets)
- tf.feature\_column.categorical\_column\_with\_vocabulary\_list(colname, vocabulary\_list)
- tf.feature\_column.categorical\_column\_with\_hash\_bucket()colname, hash\_bucket\_size)

## 2 Estimator API

### tf.Estimator

- tf.estimator.train\_and\_evaluate(estimator, train\_spec, eval\_spec)
  - $-\ estimator$  is an instance of tf.estimator.
    - Sample singature: tf.estimator.[model\_name](model\_dir, feature\_columns, model\_params)
  - train\_spec is an instance of tf.estimator.TrainSpec
    Sample signature: tf.estimator.TrainSpec(input\_fn, max\_steps)

- eval\_spec is an instance of tf.estimator.EvalSpec
 Sample signature: tf.estimator.EvalSpec(input\_fn,steps, start\_delay\_secs, throttle\_secs)