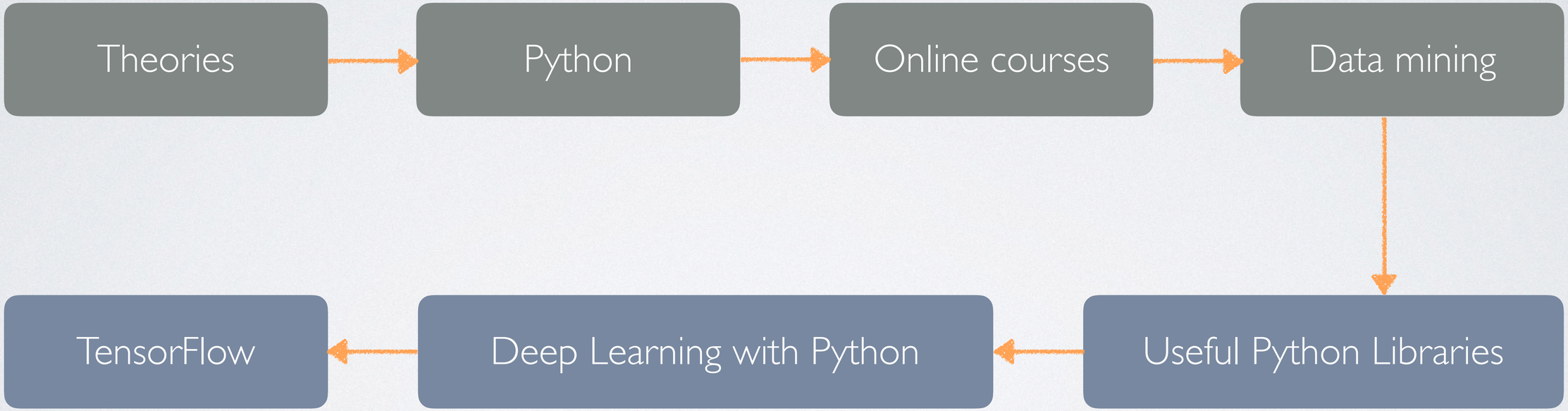
HOT SKILL - COGNITIVE LEARNING

2017.01.10

LEARNING PATH



THEORIES

- 矩阵, 微积分, 概率
- 统计
- 凸优化, 泛函
- 线性代数
- 梯度

PYTHON BASIC

Task: Create a Python Web Crawler application

- Syntax, data types, strings, control flow, functions, classes, exceptions, networking, asynchronous task, function decorator, annotation, context manager, multiprocessing etc…

ONLINE COURSES

Task: finish trainings

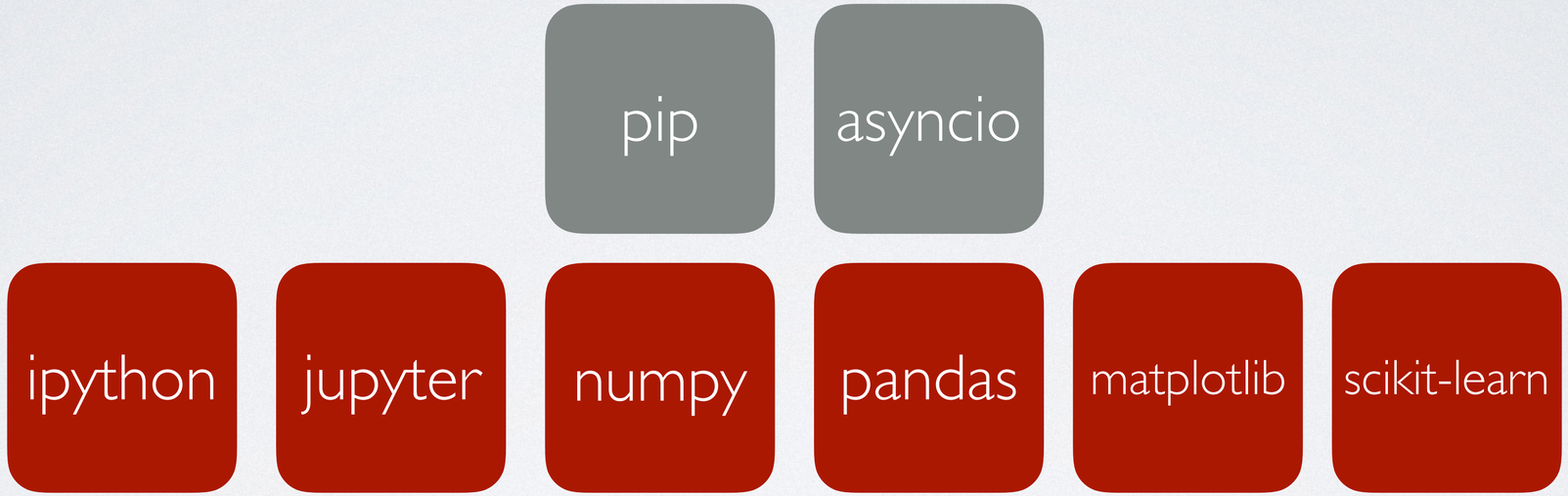
- Machine Learning
  - https://www.coursera.org/learn/machine-learning
- Neural Networks for Machine Learning
  - https://www.coursera.org/learn/neural-networks

DATA MINING

- Data cleaning
- Data Preprocessing
- Linear Regression model
- Logistic Regression model
- K - Nearest Neighbors Classifier
- Supported Vector Machine

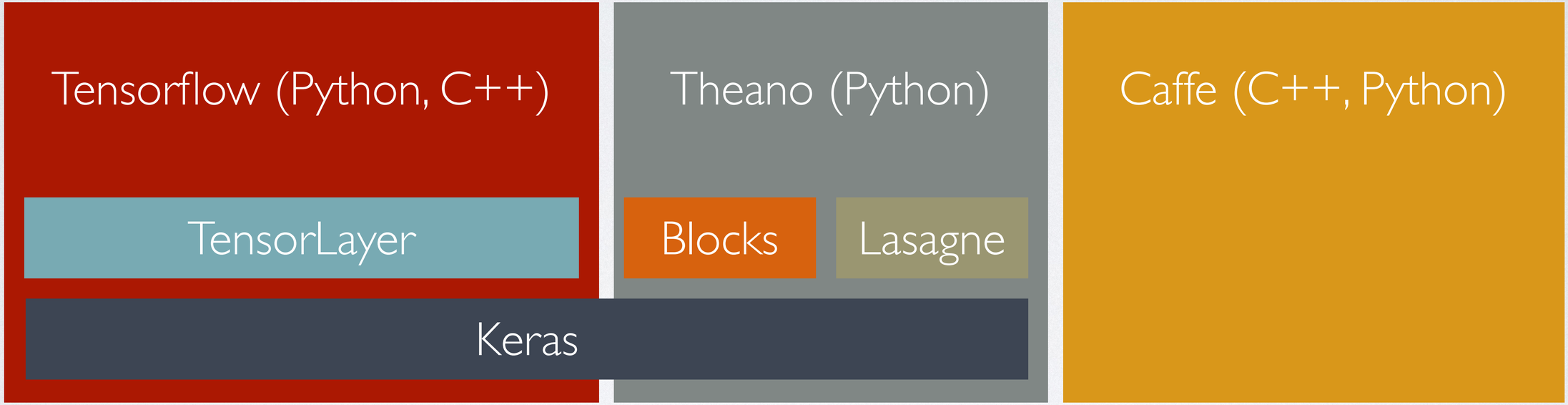
Task: TBD

USEFUL PYTHON LIBRARIES



Task: Install libraries and practice

DEEP LEARNING WITH PYTHON



Task: Understand the frameworks

TENSORFLOW

- API, TensorBoard, Playground
- Linear Regression, Logistic Regression Modeling and Training
- Activation Functions
- CNN, RNN, LSTM
- Unsupervised Learning, Restricted Boltzmann Machine and Collaborative Filtering with RBM
- Auto-encoders, Deep Belief Network, GPU programming and serving

ONLINE RESOURCES

- http://datasciencemasters.org/
- http://deeplearning.net/
- http://neuralnetworksanddeeplearning.com/
- http://www.andrewng.org/