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Project 1 Proposal

Springboard Data Science Career Track Bootcamp

1. What ​is ​the ​problem ​you ​want ​to ​solve?

2. Who ​is ​your ​client ​and ​why ​do ​they ​care ​about ​this ​problem? ​In ​other ​words, ​what will ​your ​client ​DO ​or ​DECIDE ​based ​on ​your ​analysis ​that ​they ​wouldn’t ​have otherwise?

3. What ​data ​are ​you ​going ​to ​use ​for ​this? ​How ​will ​you ​acquire ​this ​data?

4. In ​brief, ​outline ​your ​approach ​to ​solving ​this ​problem ​(knowing ​that ​you ​may ​not know ​everything ​in ​advance ​and ​this ​might ​change ​later). ​This ​might ​include: a. Is ​this ​a ​supervised ​or ​unsupervised ​problem? b. If ​supervised ​is ​it ​a ​classification ​or ​regression ​problem? c. What ​variable ​is ​it ​you ​are ​trying ​to ​predict? d. What ​variables ​will ​you ​use ​as ​predictors? e. What ​will ​be ​your ​training ​data?

5. What ​are ​your ​deliverables? ​Typically, ​this ​would ​include ​code, ​along ​with ​a ​paper and/or ​a ​slide ​deck.

**Project 1: Pattern Recognition of Cryptocurrency Fluctuation**

Problem: The cryptocurrency market is highly volatile. In this project, I will attempt to find a discernible pattern to the wild fluctuations in prices of various cryptocurrencies.

Relevance: While volatile, cryptocurrency is highly lucrative. As of Jan. 25 2018, the prices of the top 3 cryptocurrencies, Bitcoin (BTC), Ethereum (ETH), and Ripple (XRP) have grown by ~12x, ~101x, and ~203x respectively. Timing the market right could yield to even more lucrative gains.

Dataset and Acquisition: <https://www.cryptodatasets.com/platforms/Bitfinex/> has datasets on 21 cryptocurrencies. There’s also <https://www.kaggle.com/sudalairajkumar/cryptocurrencypricehistory> and coinmarketcap.com

Approach: This is a supervised problem that attempts to predict price increase % the following day. Prediction values may include the price fluctuations from previous days, the price trend from previous days, days of the week.

Deliverance: Code will be written in python and a paper will be written.

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Project 3: