Formatting instructions for NIPS 2017

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Abstract

Stock data is very difficult to analyze using classical methods, in large part due to heavy involvement of humans in stock pricing. In this paper, we examine a new approach to analyzing time-series stock data, particularly in the context of grouping correlated stocks.

1   Introduction

Here is a rough table of contents for our paper, so that the reader has a rough idea of where we'll be going:

1. Motivation (challenges to modelling stock data)

2. Long-term goal for the model / ideal model architecture

3. Classification

4. Findings

5. Conclusion

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3   Goal for the Model

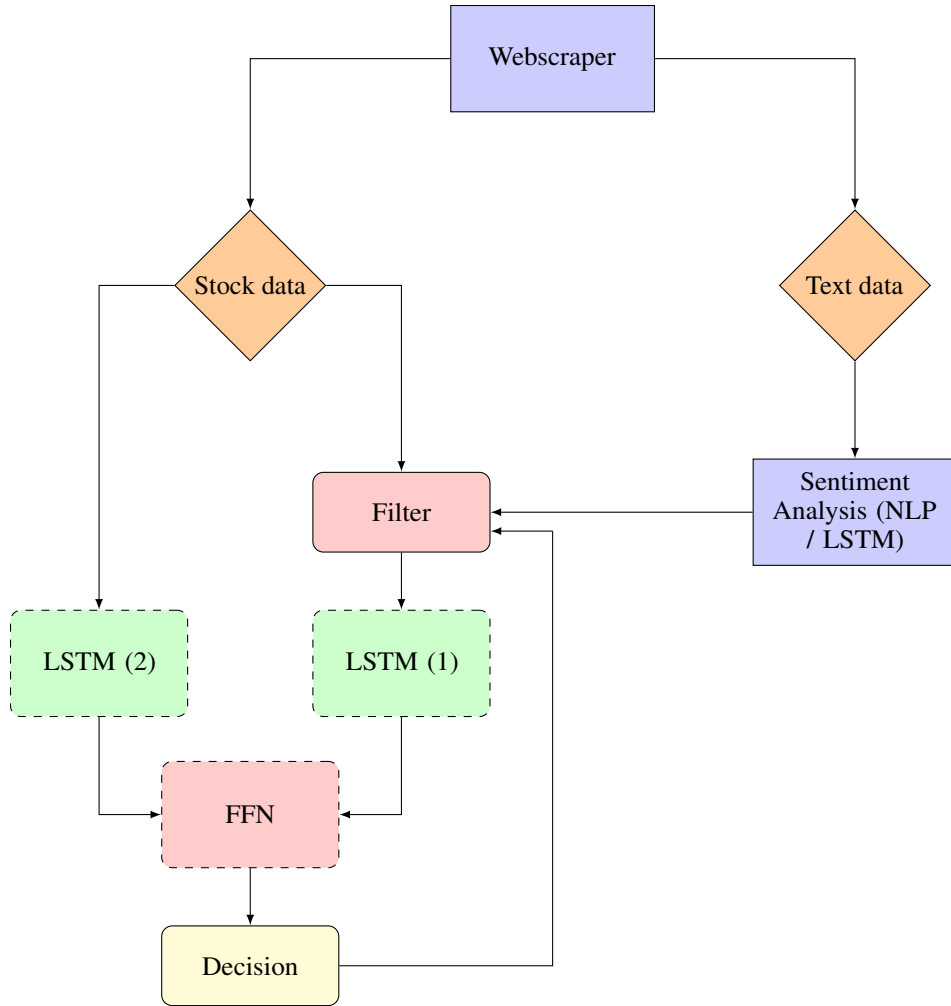Our large-scale goal for the model is as follows:

Figure 1: Goal for the model

4 Classification

Using LSTMs to predict stock pricing is, for the most part, a solved problem. Implementations and hyperparameters may differ, of course, but underneath, the structure of the model is largely the same. Hence, we decided to focus our work on augmenting the filtering stage shown above. We were particularly interested in finding new representations of market trends that we could feed into the network.

4.1 Frequency Analysis