

Bitcoin Predict



KEEP CALM AND HODL!

Agenda

- ▶ Background
- ▶ Use Cases
- ▶ Data Sources
- ▶ High Level Architecture
- ▶ Project Structure
- ▶ User Interface
- ▶ Peek into Future
- ▶ Thank You

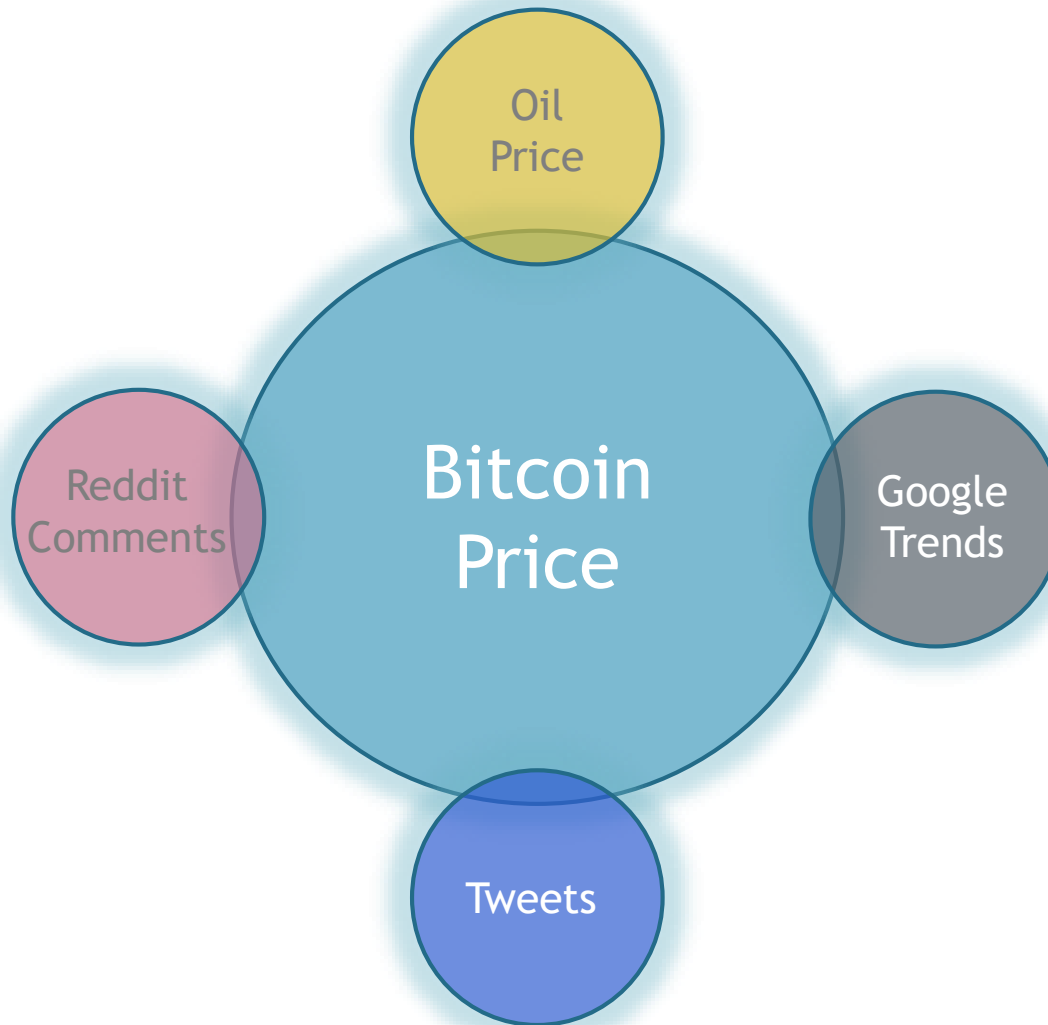
Background

- ▶ Bitcoin price prediction on a day-to-day basis
- ▶ Price highly volatile and shows patterns
- ▶ Influenced by retail consumers' psychology
- ▶ Social media, Oil price, Google search trends
- ▶ Daily prediction
- ▶ Important twitter and reddit word mentions for each day

Use Cases

- ▶ Typical user comes to the site for day trading
- ▶ Expected price movement and confidence
- ▶ Recomputed at intervals of 24 hours
- ▶ Users provided with word clouds from relevant Tweets and Reddit posts for each day
- ▶ Interactive Graph depicting historical hits and misses

Data Sources



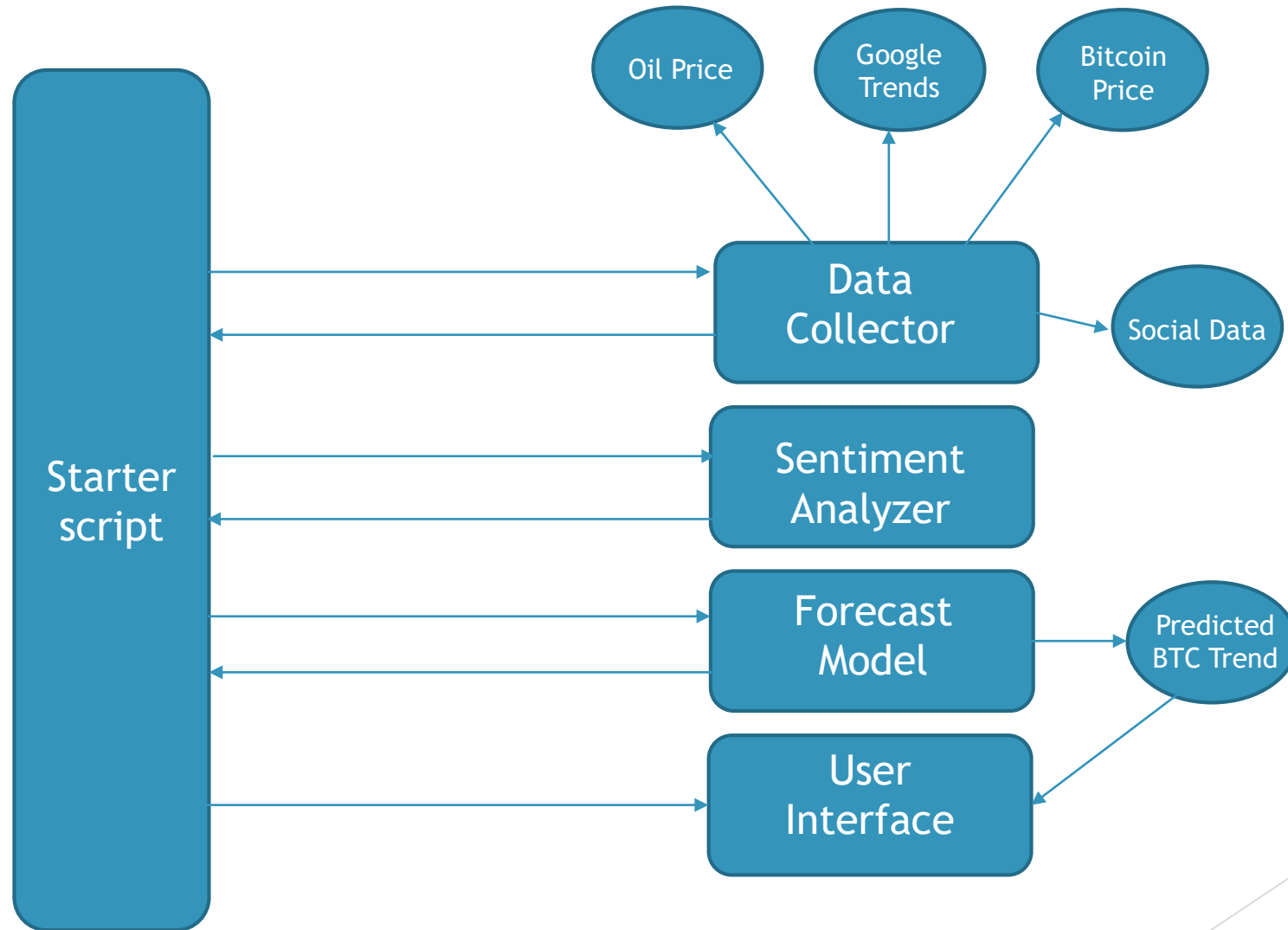
Data Sources

- ▶ Datasets used:
 - ▶ Bitcoin price
 - ▶ Social media (Twitter/Reddit)
 - ▶ Oil price
 - ▶ Google Trends
- ▶ Used APIs: Quandl, Google finance client, pytrends, praw, forex_python
- ▶ Limitations: Delay in data updates for some API providers. This is quite common across most free APIs.

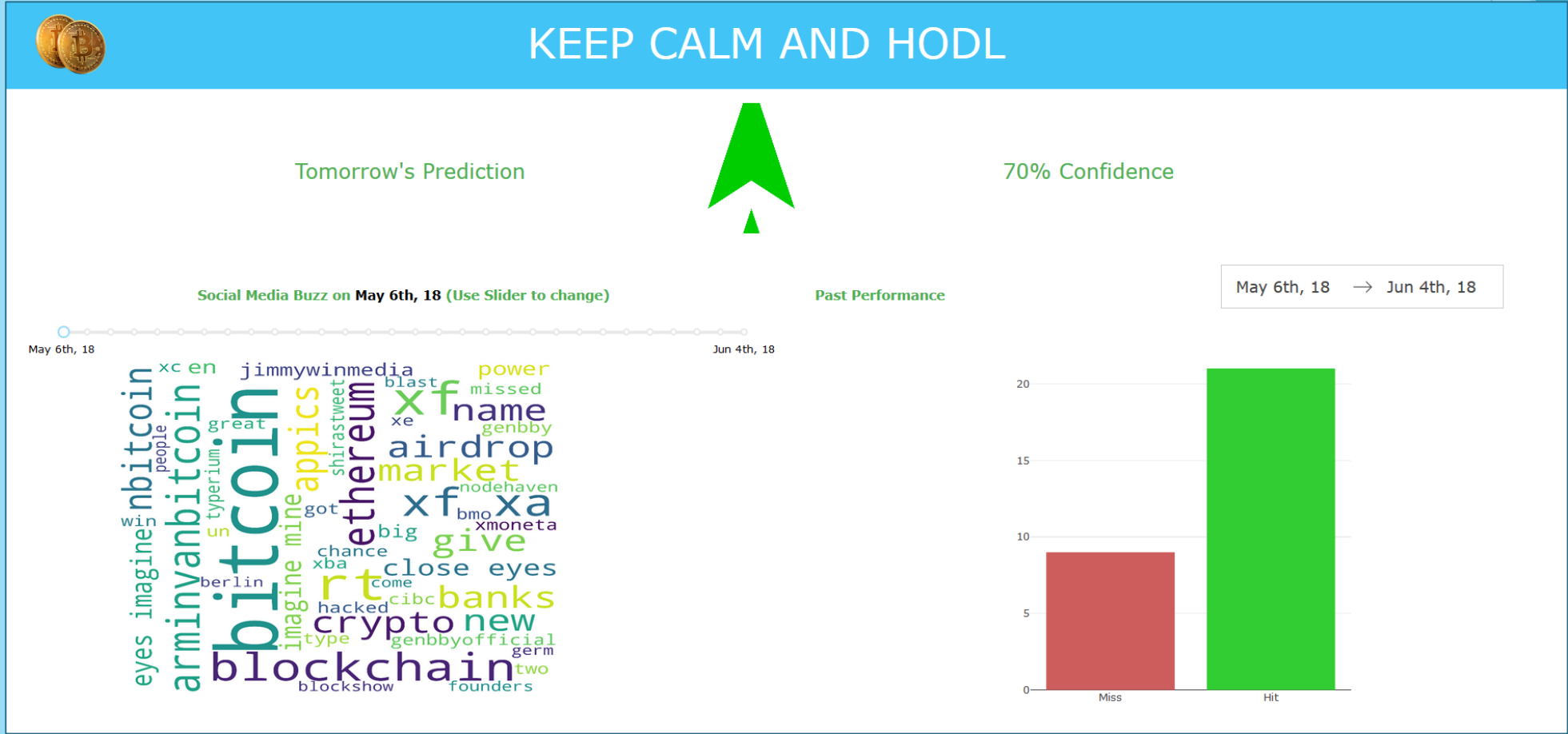
Project Structure

- data
- dist
- doc
- examples
- paper
- ▾ pybcoin
 - DataCollector
 - ModelForecast
 - SentimentAnalyzer
 - config
 - static
 - test
 - utils
 - __init__.py
 - home.py
 - starter.py
- .travis.yml
- LICENSE
- MANIFEST
- MANIFEST.in
- README.md
- requirements.txt
- setup.cfg
- setup.py

High Level Architecture



User Interface



Lessons Learned

- ▶ Continuous Integration is affected by 3rd party package inter-dependencies
- ▶ Limited functionality with free APIs: granularity/weekend
- ▶ Online support is often under-appreciated (case in point, Dash)
- ▶ Team dependencies could have been more streamlined
- ▶ Collaboration on Github was an enriching experience

Peek Into The Future

- ▶ Multiple updates during the day
- ▶ Use Additional Data Sources
- ▶ Add skill to Alexa for getting the prediction
- ▶ Extend to other major crypto currencies



Thank You!