# BUY.SELL.HODL

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#### Issue

Cryptocurrency hype

Beat the market



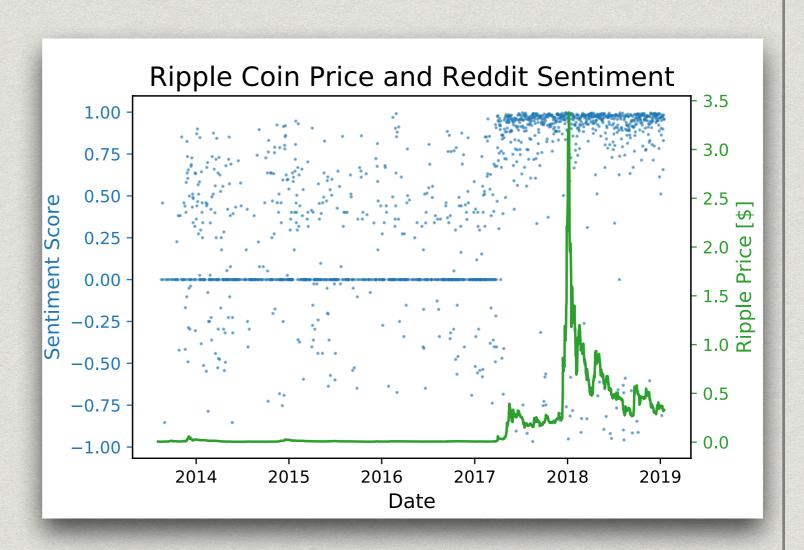
https://www.pymnts.com/wp-content/uploads/2018/01/shutterstock\_783224641.jpg

## Solution

**Data** consolidation

Time series

Sentiment analysis



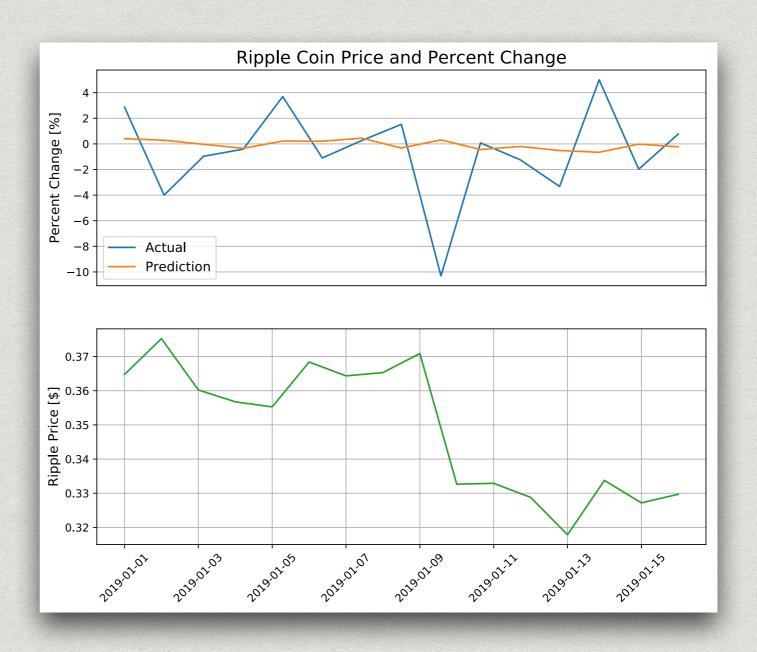
# Results

| Model      | Parameters                  | Validation RMSE | Test RMSE |
|------------|-----------------------------|-----------------|-----------|
| AR         | (2,0,0)                     | 9.13%           | 3.66%     |
| ARMA       | (1,0,1)                     | 7.89%           | 3.63%     |
| ARIMA      | (1,1,1)                     | 8.12%           | 3.60%     |
| SARIMA     | (1,0,1)(1,0,0,12)(n)        | 7.32%           | 3.66%     |
| SARIMAX    | (1,0,1)(1,0,1,12)(n) + exog | 5.87%           | 3.66%     |
| FB Prophet | N/A                         | N/A             | 3.93%     |

## Scenario

**HODL: -7%** 

**SARIMAX: -1.7%** 



## Conclusion

Price prediction is difficult

## Future Work

Exogenous data

Markov chains state space

Thank you