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## Cover page

- Add in abstract

- Add keywords : ARIMA forecasting, prophet forecasting, Diebold Mariano Test, model free forecast evaluation, cross validation???

## Introduction

Hghgh.

-Include the new objectives if the performance of the models (which one does better) is influenced by the sample size. i.e. does one perform better for different sample sizes

- Does one perform better over the other for different forecasting horizons? (first try 10 days, then adapt code for 1month, 3months, 6months ahead?)

## Background

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Tip: for theory. Reference other papers methodology when using it n ony elaborate on wht you’ve introduced.

### Literature Review

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### Theory (Or maybe make this 2.1)

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## Methodology

Brief intro of the content and flow of this section in no more than 4 lines.

### Data

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### Model estimation and selection

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#### 3.2.1 Arima model

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#### 3.2.2 Prophet forecasting model

bdbdbdb

### 3.3. Forecasting errors

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#### 3.3.1 Arima

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#### 3.3.2 Prophet forecasting model

- Mention how the forecasting errors are calculated using cross validation if it ends up being used.

### 3.4. Model evaluation

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#### 3.4.1. Forecasting errors

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#### 3.4.2. Bootstrapping (rename)

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# 4. Results and Discussion

Brief intro of the content and flow of this section in no more than 4 lines.

* Building ARIMA (PACF’s and ACFs in the appendix)
* Final ARIMA model (estimates w/ their sd and maybe confidence interval)
* Final Prophet model (as with ARIMA)
* Results for comparing the two models
  + Generic Results histograms
    - P-values from DM Test for different sample sizes of forecast errors, nf=100, 500, 1000 (to check if the performance is influenced by the sample size)
    - Have rows for different forecast horizons (make a table which you can either incl. in the results or attach as part of the appendix)
    - The histogram will have superimposed plots of the results for different time horizons
  + Assessing the strength of the interpretability of the hypothesis testing results i.e evaluating our evaluation results (Variation in alpha and power). (Plot separate graphs for type I and type II error but incl. a table that has both.
  + If one is better than the other, then maybe try comparisons with other popular/robust methods like Garch n ANN

# 5. Conclusion

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# 6. References

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# 7. Appendices

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