Predicting AAPL Stock with Machine Learning\*

(6-10 pages)

Name: Erik Buinevicius Email: embuinevicius@crimson.ua.edu

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# Introduction (*Heading 1*)

This section describes the background and significance of the research questions.

# Research Questions

Please explicitly describe the research questions.

# Related Work

Please describe previous work in the research questions.

# Methods

Before you begin to format your paper, first write and save the content as a separate text file. Complete all content and organizational editing before formatting. Please note sections A-D below for more information on proofreading, spelling and grammar.

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## Data Acuqisition

Please describe how you acquire the data.

## Data Cleaning and Labeling

Please describe how you clean and label the dataset.

## Feature Engineering

Please describe how you implement feature extraction and representation.

## Model Development

Please describe how you develop the models, including SVM, Decision Trees, Linear Regression, and Neural Networks.

## Model Training

Please describe how you train the model, especially any optimization strategies you adopt for hyperparameters and model parameters.

## Model Evaluation and Validation

Please describe the strategies you used for evaluation and validation of the trained models.

## Model Deployment

Please describe how you deploy the models to web.

# Results

Please show your results as below.

## Mode Performance in Evaluation

#### Please show the prediction performance of the models during evaluation and validation.

## Feature Importance

Please show how the features contribute to the model performance.

## Runtime Monitoring

Find other 2 classmates and let them use your web-based models. Each of them should create a testing data sample to test your web-based model performance. Please describe your web-based model’s testing performance here.

# Discussion

## Answers to Research Questions

Did your results answer the research questions. If yes, how much is being answered? If no, why?

## Limitations of your research.

Please explain any limitations of your research

## Lessons Learned

Please describe what kind of lessons you learned from the final project.

##### Acknowledgment

Please acknowledge your classmates and any others helped you during the research process..

##### References

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4. K. Elissa, “Title of paper if known,” unpublished.
5. R. Nicole, “Title of paper with only first word capitalized,” J. Name Stand. Abbrev., in press.
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