**Rotten Tomatoes**

Movies Rating Prediction

Mounika Revanuru  
 DATA 6150  
Wentworth Institute of Technology  
 Boston Massachusetts USA  
 [revanurum@wit.edu](mailto:revanurum@wit.edu)

ABSTRACT

This project aims to predict the status of movies on Rotten Tomatoes, classifying them as 'Rotten', 'Fresh', or 'Certified-Fresh'. Two distinct approaches are explored: the first utilizes numerical and categorical features from a dataset, while the second focuses on text data, specifically critics' reviews. Both approaches leverage tree-based machine learning algorithms, particularly the Decision Tree Classifier and Random Forest, to model movie ratings. The goal is to build and evaluate high-performing classification algorithms, comparing the effectiveness of these models in predicting movie status using different types of input data.

This project aims to predict the status of movies on Rotten Tomatoes, classifying them as 'Rotten', 'Fresh', or 'Certified-Fresh'. Two distinct approaches are explored: the first utilizes numerical and categorical features from a dataset, while the second focuses on text data, specifically critics' reviews. Both approaches leverage tree-based machine learning algorithms, particularly the Decision Tree Classifier and Random Forest, to model movie ratings. The goal is to build and evaluate high-performing classification algorithms, comparing the effectiveness of these models in predicting movie status using different types of input data. ∗Article Title Footnote needs to be captured as Title Note

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KEYWORDS

Prediction, Classification Algorithms, Tree-Based Models, Text and Numerical Analysis

1 Introduction

Provide an introduction of your topics. Make sure you include the following part. What’s your topic? Why is it important or interesting? What’s the current research/results in this area. Include necessary citation.

Example format: xxxx.

2 Data

In this part, you should introduce your datasets.

2.1 Source of dataset

Where did you download it? Is it a credible source? When were the datasets generated? How were the datasets generated by the creator? If you create the datasets, how did you generate it?

Example: xxxx

2.2 Characters of the datasets

What’s the format and size of the datasets? What parameters/columns/rows/character and their units are included in this dataset. Use a table to explain this is recommended. Did you clean the data or convert any unit in the dataset? If so, what’s the formula/rule did you apply? Did you combine any datasets? If so, how do you combine them? Did you create any new category for analysis in the datasets? If so, what and how do you create?

3 Methodology

In this part, you should give an introduction of the methods/model. First, what’s the method/model. What’s the assumption of this method/model. What’s the advantage/disadvantage of this method/model. Why did you choose it. What Python module or function do you apply to apply this method/model. Any optional input/extra work did you adjust to make the results better. If you have multiple methods, feel free to use subsection 3.1, 3.2, 3.3, … to separate them.

3.1 Heading Level 2

3.2 Heading Level 2

…

Example format: The updated template, user manuals, samples, and required fonts, all are available at the URL <https://www.acm.org/publications/proceedings-template>. It contains said information for all three versions of MS Word (Windows and 2 versions of Mac). There are also separate links to the user guide, which can be referred to by the user. This URL also contains some useful video links, which describe how to add the template, structure the paper, and generate the layout, in different clips. **Display Formula with Number**

 (1)

**Continuation part of Paragraph Text** The user must style this paragraph in **ParaContinue** style, which follows immediately after the **DisplayFormula** (numbered equation). The **DisplayFormula** style is applied only in case of a numbered equation. A numbered equation always has a number to its right. Insert paragraph text here. **Display Formula without Number**



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Figure 1: Figure Caption and Image above the caption [In draft mode, Image will not appear on the screen]

**Theorem/Proof/Lemma.** Insert text here for the enunciation or Math statement. Insert text here for the enunciation or Math statement. Insert text here for the enunciation or Math statement. Insert text here for the enunciation or Math statement. Insert text here for the enunciation or Math statement.

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4 Results

In this part, you need to select a reasonable way to deliver the result of your topic. For example, equation or numerical results, or visualization of your result. You also need to provide a clear explanation of all results and how to understand the results. If there exist any unexpected results, please explain why or possible cause of this special result. You can use subsection 4.1, 4.2, … to separate your results.

4.1 Heading Level 2

Example format: In the below paragraph, it is explained how alt-txt value is placed in **MS Word 2010**. To add alternative text to a picture in Word 2010, follow these steps:

1. In a Word 2010 document, insert a picture.
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3. Select the **Alt Txt** option from the left-side panel options.
4. In the "Title:" and "Description:" text boxes, type the text you want to represent the picture, and then click "Close".

Below are steps to place alt-txt value in **MS Word 2013/2016**. To add alternative text to a picture in Word 2013/2016, follow these steps:

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5 Discussion

Every method/project has its shortage or weakness. Please discuss the unsatisfied results in your project. And discuss the feasible suggestions of future work to revise/improve your result.

6 Conclusion

In this part, you should summarize your project. What important results did you find for your topic and what’s the effect of this result on the real-world?

ACKNOWLEDGMENTS

Insert paragraph text here. Insert paragraph text here.

REFERENCES

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