**PEER REVIEW 1:**

**Peer review of “Market Research Survey Analysis”**

**Reviewer's name (Naga Raju Vodnala)**

**Author's name: Vinusha**

**Date reviewed: 08 May 2023**

**A. Summary of the project**

Vinusha, undertook an exploration of the 'Market Research Survey' dataset, available on Kaggle, with the objective of transforming raw survey data into actionable insights for businesses. The dataset choice is commendable, given its high relevance in today's data-driven market scenario. Although the project was executed well overall, some areas require improvement, and certain portions of the report could be made more understandable.

**B. Serious concerns**

1. Certain sections of the report, particularly those dealing with complex methodologies, need to be clarified for the benefit of readers who may not be experts in the field.

2. The code provided in the notebook lacks sufficient documentation(report), which makes it challenging for someone else to replicate or build upon the work.

**C. Major comments**

1. The exploration of different models for comparison of their accuracies was limited. The inclusion of a variety of models, with detailed comparison of their performance, would have strengthened the report.

2. It was observed that the accuracy decreased in the single-layer model. This is a significant issue that needs to be addressed in the report.

3. In terms of feature reduction, only one technique was applied. It would have been beneficial to use multiple techniques, which would have allowed for comparison and verification of the most important input features.

4. The performance measurements in the report should clearly indicate whether they pertain to a training set or a validation set. Having separate columns for each would be beneficial.

5. A comprehensive explanation of how the baseline accuracy was calculated would lend credibility to the report.

6. The report would be more robust if it included a variety of performance metrics, such as precision or F1 score, in addition to accuracy.

7. Details regarding the tuning of hyper parameters were missing. This information is crucial for understanding the performance of the model and for replication of the work.

8. The report could be enriched by discussing potential improvements and alternative methodologies for the analysis.

9. More visualizations and checks for incorrect labels would add value to the report.

10. The language and structure of the report could be improved to enhance readability. Tools such as Google Docs or grammarly could be useful for this purpose.

**D. Minor Observations**

1. The report contains a few spelling errors that need to be corrected.

2. Captions of some tables and figures could be improved for clarity.

3. The title of the project could be more descriptive to better represent the content.

4. Some references were missing from the report, and their inclusion would ensure a complete citation record

**Additional Resource**

Finally, I would recommend Vinusha to view the 13-minute video lecture on "Doing a peer-review" from the Coursera course "Writing in the Sciences". It offers a thorough understanding of the peer-review process in the sciences.

**PEER REVIEW 2:**

**PEER REVIEW OF “CITRUS FRUIT CLASSIFICATION”**

**Reviewer's name (Naga Raju Vodnala)**

**Author's name: Sai Sree Doddapuneni**

**Date reviewed: 08 May 2023**

**A. Summary of the project**

The "Citrus Fruit Classification" project, led by Sai Sree Doddapuneni, endeavors to differentiate between oranges and grapefruits utilizing deep learning methodologies. The Python code delineates each step of the process, encompassing data normalization, data visualization, model creation and training, and feature importance analysis. Despite the clarity in technical execution, there are several areas that require enhancement and fine-tuning.

**B. Serious concerns**

1. The script lacks substantial commentary, which makes it difficult for others to comprehend the sequence of actions or the reasoning behind specific choices. Enhancing the commentary would boost comprehensibility and foster collaboration.

2. A clear adherence to the five-phase project requirement is not evident, which could potentially undermine the project's overall standard and dependability.

**C. Major comments**

1. The model's performance evaluation could be more exhaustive. Although precision, recall, and F1 scores are computed, incorporating a confusion matrix, ROC curves, and AUC metrics would offer a more holistic understanding of the model's performance.

2. Lack of implementing all the four phases correctly or more improvement needed.

3. Trying out a variety of model architectures, including more complex multi-layer models, and comparing their performance could enhance the project.

4.The analysis of feature importance using single-feature models is innovative. However, comparing this with other feature reduction techniques could confirm the relevance of the chosen features.

5. The reasoning behind the selection of particular hyper parameters isn't explained. Sharing this information could provide a better context and comprehension of the model's performance.

6.Data could be normalized after the train-test split to prevent data leakage.

**D. Minor Observations**

1. Addressing typographical and grammatical errors would enhance readability.

2. Inline comments would improve the code's comprehensibility, especially for individuals less familiar with the field.

3. The seaborn plots would be more informative with added titles and labels.

4. The code could be organized into functions or classes for better readability and reproducibility, leading to a more modular and understandable project.

5. The normalization process is executed before the train-test split, which could potentially result in data leakage as the test data shouldn't influence the training data.

6. There's no random seed set for the train-test split, which could cause different splits each time the code is run, affecting reproducibility.

**Additional Resource**

I would suggest that Sai Sree take a look at other sample project notebooks to get an idea of how to improve their project. Additionally, watching the 13-minute video lecture on "Doing a peer-review" from the Coursera course "Writing in the Sciences" could be helpful in gaining a better understanding of the peer-review process in scientific research.