

Review of: "Songs Classification Problem Research by Genre Based on Neural Network"

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Potential competing interests: No potential competing interests to declare.

The paper presents a study on song classification by genre using neural networks. The methodology includes data preprocessing, feature extraction, and training various neural network models. While the research is promising, several areas need improvement for clarity and robustness.

1. The paper discusses the need for accurate genre classification but lacks explicit statements about the specific research gaps it addresses. Clearly articulate the specific limitations of existing genre classification methods and how this study addresses them. Provide a comparison table summarizing these limitations and how the proposed model addresses each one.
2. The manuscript describes the neural network models used but lacks detailed explanations of how these components interact and contribute to the overall performance. Provide a more detailed explanation of the interaction between different neural network components. Include a step-by-step breakdown of the model's architecture, supported by diagrams where necessary.
3. The manuscript provides an overview of the datasets and evaluation metrics used but lacks specific details on the experimental setup. Include a detailed description of the datasets, including preprocessing steps and characteristics. Provide a summary table of dataset statistics and a clear explanation of the experimental setup, including hyperparameters, training/validation/test splits, and evaluation metrics.
4. The manuscript includes some discussion of the model's performance but lacks a comprehensive ablation study. Conduct and present a detailed ablation study that systematically examines the contributions of various components of the model. Present results in a table format, showing the effect of adding or removing specific components on key performance metrics.
5. The manuscript compares the proposed model with existing genre classification models but lacks in-depth analysis and visual comparisons. Provide more detailed comparisons with existing models. Include visual comparisons (e.g., confusion matrices, ROC curves) to highlight differences in performance. Discuss how the proposed model handles specific challenges better than other models.
6. The manuscript discusses the model's robustness but lacks detailed empirical evidence. Include more detailed experiments on datasets with varying levels of noise. Provide quantitative results and analyses demonstrating the model's robustness to noisy data compared to other methods.
7. Provide a step-by-step explanation of the neural network components, including how feature extraction and classification are performed.

8. Include a more focused discussion on recent advancements in genre classification, particularly those utilizing deep learning techniques. Highlight how the proposed model compares to these recent advancements.