Max 4-Page (+1 for Refs.) Project's Template for the ILST Course

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Abstract

1000 characters maximum. ASCII characters only. No citations. Provide a concise summary of your project, including key objectives and findings.

Index Terms: keyword1, keyword2, keyword3, keyword4, keyword5

1. Introduction

- Clearly outline the relevance and significance of your chosen topic.
- State the **research question (RQ)** guiding your manuscript.
- Tip: References to general reports and literature reviews are welcomed in this section.

2. Method

2.1. Search Procedure

- Explain in detail how you carried out the search of related papers: Databases used, keywords, number of papers found/discarded/filtered, exclusion and inclusion criteria and any limitation related to your search procedure.
- Minimum 5 and maximum 10 scientific papers need to be analyzed in your project.
- Remember that the final selected papers must have been published 2019 onwards.

2.2. Models

Briefly describe the relevant information related to speech-based models of the papers found in a well-organized way.

2.3. Datasets

Briefly describe the relevant information related to the speech-based datasets used in the papers found in a well-organized way.

2.4. Metrics

Briefly describe the relevant information related to the results metrics used in the papers found in a well-organized way.

3. Results

- Describe objectively (without personal thoughts) the results reported in at least five related papers (and maximum ten papers). A clear organization and structured synthesis (categories and common points) are preferred.
- Examples: Gao et al. [1] reported an accuracy of XX%, while van Gelderen and Tejedor-García [2] proposed a system that achieved an accuracy of YY% and [3]...
- You might include subsections for specific subtopics, grouping similar papers results.
- You might reference tables or figures of the papers but do not include them in your manuscript.

4. Discussion

- Discuss with your own words the implications of the results within the specific context of your topic (e.g., bias, explainability, application to real-world applications, etc.).
- Provide your personal insights and reflections on the results based on your short experience with speech technology and the course's material (lectures, guest speakers and seminars/tutorials).

5. Conclusion

- Summarize the key insights from your chosen topic.
- Highlight any gaps in current research and suggest avenues for future exploration.
- Personal thoughts about the course and the activities done in relation with the project are welcomed.
- No references are needed in this section.

6. References

[1] L. Gao, C. Tejedor-García, H. Strik, and C. Cucchiarini, "Reading Miscue Detection in Primary School through Automatic Speech Recognition," in *Interspeech 2024*, 2024, pp. 5153–5157. [Online]. Available: https://doi.org/10.21437/Interspeech.2024-1180

[2] L. van Gelderen and C. Tejedor-García, "Innovative Speech-Based Deep Learning Approaches for Parkinson's Disease Classification: A Systematic Review," *Applied Sciences*, vol. 14, no. 17, 2024. [Online]. Available: https://doi.org/10.3390/app14177873

[3] C. Zhou, Q. Li, C. Li, J. Yu, Y. Liu, G. Wang, K. Zhang, C. Ji, Q. Yan, L. He *et al.*, "A Comprehensive Survey on Pretrained Foundation Models: A History from BERT to ChatGPT," *arXiv preprint arXiv:2302.09419*, 2023.