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## Review of Speech Recognition Research on Low-Resource Languages

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**Abstract :** This paper reviews the current state of research on low-resource languages in the field of speech recognition, focusing on the challenges faced by low-resource language speech recognition, including the scarcity of data resources, the lack of linguistic resources, and the diversity of dialects and accents. The article reviews recent progress in low-resource language speech recognition, including techniques such as data augmentation, end to-end models, transfer learning, and multitask learning. Based on the challenges currently faced, the paper also provides an outlook on future research directions. Through these studies, it is expected that the performance of speech recognition for low resource languages can be improved, promoting the widespread application and adoption of related technologies.

**Keywords:** low-resource languages, speech recognition, data augmentation techniques, NLP **Conference Title:** ICMLC 2024: International Conference on Machine Learning and Cybernetics

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