

Advances and Challenges of Automatic Spoken Language Assessment and Feedback

Abstract

Recent years have witnessed remarkable advances in artificial intelligence (AI), leading to a global surge of multidisciplinary research and innovation. Emerging technologies driven by this trend, particularly deep learning methods and large language models (LLMs), have led to revolutionary breakthroughs across various multimedia processing and application domains. These developments have also significantly advanced research and applications in automatic speech recognition (ASR) and natural language processing (NLP). This talk will provide an overview of the current state and emerging trends in applying novel ASR and NLP techniques to support the development of computer-assisted language learning (CALL) systems, with a particular focus on the automation of scoring and feedback generation in use cases pertaining to computer-assisted pronunciation training (CAPT) and speaking proficiency assessment (SPA).