ZEYU ZHAO

Google Scholar LinkedIn Personal Website

Informatics Forum, 10 Crichton Street, Edinburgh, EH8 9AB, Scotland

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EDUCATION

University of Edinburgh *September 2020 - Present*
PhD Student, supervised by Prof Peter Bell
End-to-End Speech Recognition
Centre for Speech Technology Research
School of Informatics

Tsinghua University *September 2017 - August 2020*
Master of Science, supervised by Dr Wei-Qiang Zhang
End-to-End Keyword Search and Speech Recognition for Low Resource Languages
Speech and Audio Technology Lab
Department of Electronic Engineering CGPA: 3.6/4.0

Lady Margaret Hall, University of Oxford *August 2019*
Summer Programme, Science Research at the Cutting Edge
Successfully completed with distinction

Beijing Institute of Technology *September 2013 - June 2017*
Bachelor of Science
Department of Electronic Engineering CGPA: 90/100

RESEARCH INTERESTS

Automatic Speech Recognition (ASR), End-to-End ASR

PUBLICATIONS

Conferences

Z. Zhao, Pinzhen Chen, and P. Bell, "Regarding Topology and Adaptability in Differentiable WFST-based E2E ASR" XAI-SA Workshop ICASSP 2024 (accepted)

Z. Zhao, P. Bell, and O. Klejch, "Exploring Dominant Paths in CTC-Like ASR Models: Unraveling The Effectiveness of Viterbi Decoding" XAI-SA Workshop ICASSP 2024 (accepted)

Z. Zhao and P. Bell, "Regarding Topology and Variant Frame Rates for Differentiable WFST-based End-to-End ASR" INTERSPEECH 2023 (pp. 4903-4907)

Y. Li[†], **Z. Zhao**[†], O. Klejch, P. Bell, and C. Lai, "A Word-Level Investigation of the Mutual Impact of Speech and Emotion Recognition" INTERSPEECH 2023 (pp. 1449-1453)

Z. Zhao and P. Bell, "Investigating Sequence-Level Normalisation For CTC-Like End-to-End ASR" IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP) 2022 (pp. 7792-7796)

[†]Equal contribution.

Z. Zhao and W. Q. Zhang, "End-to-End Keyword Search Based on Attention and Energy Scorer for Low Resource Languages" INTERSPEECH 2020 (pp. 2587-2591)

Z. Zhao, W. Q. Zhang, J. Liu, F. Zhang, X. Li, and L. Yu, "Jujubecake: An Extension of LSTM Considering Correlation among Input Blocks" 2020 15th IEEE International Conference on Signal Processing (ICSP) (Vol. 1, pp. 316-320)

Journals

Z. Zhao and W. Q. Zhang, "End-to-End Keyword Search System Based on Attention Mechanism and Energy Scorer for Low Resource Languages" Neural Networks, 2021, 139, 326-334

Z. Zhao, W. Q. Zhang, and J. Liu, "End-to-End Keyword Search System Based on Attention Mechanism and Multitask Learning," (in Chinese) Journal of Signal Processing, 2020, 36(6):839-851. DOI: 10.16798/j.issn. 10030530. Jun 2020.

EXPERIENCE

SpeechBrain k2 integration *August 2023 - February 2024*
Make the new version of SpeechBrain support k2 training and decoding
Main contributor
For more information

Automatic Speech Recognition (ASR) 2023-24 *January 2024 - June 2024*
By Prof Peter Bell
Teaching Assistant and Demonstrator
University of Edinburgh

Machine Learning 2023-24 *January 2024 - June 2024*
By Dr Hao Tang
Marker
University of Edinburgh

Automatic Speech Recognition (ASR) 2022-23 *January 2023 - June 2023*
By Prof Peter Bell
Teaching Assistant and Demonstrator
University of Edinburgh

Machine Learning 2022-23 *September 2022 - January 2023*
By Dr Hao Tang
Marker
University of Edinburgh

Automatic Speech Recognition (ASR) 2021-22 *January 2022 - June 2022*
By Prof Peter Bell
Teaching Assistant and Demonstrator
University of Edinburgh

AWARDS & SCHOLARSHIPS

Student Research Award *2019*
Research Center for Media Big Data Cognitive Computing, Department of Electronic Engineering
Tsinghua University, Beijing, China

National Scholarship *2014 - 2016*
Beijing Institute of Technology, Beijing, China
For top students only

First Undergraduate Scholarship *2013 - 2017*
Beijing Institute of Technology, Beijing, China
For top students only

Third Prize, Beijing Electronic Design Competition *2016*

Honorable Mentioned, Mathematical Contest in Modelling *2015*

First Prize in National Physics Competition *2014*