CHENGYI WANG

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RESEARCH INTERESTS

Speech Pre-training, Speech Recognition, Speech Translation,

EDUCATION

Nankai University   09/2014-06/2018
College of Computer Science   Bachelor
GPA: 91/100 (top 10%)

Nankai University   09/2018-06/2023(expected)
College of Computer Science   PhD
Under the co-supervision of Prof. Zhenglu Yang and Dr. Ming Zhou

RESEARCH EXPERIENCE

Microsoft Research Asia (MSRA), Beijing, China   07/2017-09/2018
Research intern in Natural Language Computing (NLC) Group
Work on Machine Translation. Mentor: Dr. Mu Li, Dr. Shujie Liu

Microsoft Research Asia (MSRA), Beijing, China   05/2019-present
Joint PhD in Natural Language Computing (NLC) Group
Work on Speech Pre-training, Speech Recognition and Translation. Mentor: Dr. Shujie Liu

PUBLICATIONS (GOOGLE SCHOLAR)

1. **Chengyi Wang**, Yu Wu, Shujie Liu, Zhenglu Yang and Ming Zhou. Bridging the Gap between Pre-training and Fine-tuning for End-to-End Speech Translation. (AAAI 2020).
2. **Chengyi Wang**, Yu Wu, Shujie Liu, Ming Zhou and Zhenglu Yang. Curriculum Pre-training for End-to-End Speech Translation. (ACL 2020).
3. **Chengyi Wang**, Yu Wu, Yao Qian, Kenichi Kumatani, Shujie Liu, Furu Wei, Michael Zeng, Xuedong Huang. Unispeech: Unified Speech Representation Learning with Labeled and Unlabeled Data. (ICML 2021).
4. **Chengyi Wang**, Yu Wu, Sanyuan Chen, Shujie Liu, Jinyu Li, Yao Qian, Zhenglu Yang. Self-Supervised Learning for speech recognition with Intermediate layer supervision. (ICASSP 2022).
5. **Chengyi Wang**, Yu Wu, Yujiao Du, Jinyu Li, Shujie Liu, Liang Lu, Shuo Ren, Guoli Ye, Sheng Zhao and Ming Zhou. Semantic Mask for Transformer-based End-to-End Speech Recognition. (InterSpeech 2020).
6. **Chengyi Wang**, Yu Wu, Liang Lu, Shujie Liu, Jinyu Li, Guoli Ye and Ming Zhou. Low Latency End-to-End Streaming Speech Recognition with a Scout Network. (Interspeech 2020).(Best Paper nomination)
7. Sanyuan Chen*, **Chengyi Wang***, Zhengyang Chen*, Yu Wu*, Shujie Liu, Zhuo Chen, Jinyu Li, Naoyuki Kanda, Takuya Yoshioka, Xiong Xiao, Jian Wu, Long Zhou, Shuo Ren, Yanmin Qian, Yao Qian, Micheal Zeng, Furu Wei. WavLM: Large-Scale Self-Supervised Pre-Training for Full Stack Speech Processing. ArXiv Preprent. (*joint first author)
8. Sanyuan Chen, Yu Wu, **Chengyi Wang**, Zhengyang Chen, Zhuo Chen, Shujie Liu, Jian Wu, Yao Qian, Furu Wei, Jinyu Li, Xiangzhan Yu. Unispeech-SAT: Universal Speech Representation Learning with Speaker Aware Pre-training. (ICASSP 2022).
9. Junyi Ao*, Rui Wang*, Long Zhou, **Chengyi Wang**, Shuo Ren, Yu Wu, Shujie Liu, Tom Ko, Qing

Li, Yu Zhang, Zhihua Wei, Yao Qian, Jinyu Li, Furu Wei. SpeechT5: Unified-Modal Encoder-Decoder Pre-Training for Spoken Language Processing. (ACL 2022).

10. Jinyu Li, Yu Wu, Yashesh Gaur, **Chengyi Wang**, Rui Zhao, Shujie Liu. On the Comparison of Popular End-to-End Models for Large Scale Speech Recognition. (InterSpeech 2020).

PROJECTS

Build Streaming Transformer for Speech Recognition.
It has got over 200 stars on Github.
Invited talk at Workshop on Machine Learning in Speech and Language Processing 2021

Large Scale Pre-training for Speech Recognition.
We investigate whether and how pre-training method can improve the recognition accuracy on huge production-scale dataset with **155K** hours unlabeled data and **65K** hours labeled data. Technical Report

RECENT HONORS & AWARDS

Academic Sholarship, Nankai University, 2020, 2021
National Scholarship, 2020 (top 3%)
Microsoft Fellowship finalist, 2021
InterSpeech Best Paper finalist, 2020

SERVICES

Reviewer for COLING 2020, IWSLT 2021, EMNLP 2021, AAAI 2022 Workshop