

# Shiwei Gan

Nanjing University

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My current research interest is in deep learning and video-language representation, in particular, sign language recognition and translation

GitHub: https://github.com/gswycf

## **Education Background**

PH.D. 2019.07~Now
 Nanjing University Department of Computer Science and Technology
 Average score: 90.53
 Advised by Professor Sanglu Lu and Associate Researcher Yafeng Yin

• B.S. 2015.09~ 2019.06 Hunan University College of Computer Science and Electronic Engineering Average score: 87.26 Rank: 4/184 (3.26%)

### Research

- Shiwei Gan, Yafeng Yin, Zhiwei Jiang, Lei Xie, Sanglu Lu. <u>Skeleton-Aware Neural Sign Language Translation</u>. In Proceedings of the 29th ACM International Conference on Multimedia. 2021.
- Overview: We propose a Skeleton-Aware neural Network for end-to-end SLT by fully exploiting skeletal modality in three aspects: designing a self-contained branch for skeleton extraction, concatenating skeleton and RGB channels for feature extraction, constructing a skeleton-based GCN for feature scaling.
- Shiwei Gan, et al. Towards Real-Time Sign Language Recognition and Translation on Edge Devices. Submitted to IJCAI 2023
- Overview: We achieve real-time sign language translation without GPU by designing a lightweight region aware temporal GCN and adopting structural re-parameterization.
- Shiwei Gan, et al. Contrastive Learning for Sign Language Recognition and Translation.
   Submitted to IJCAI 2023
- Overview: We tackle two widely existing problems in CSLR and SLT: CTC spike
  phenomenon and the exposure bias problem. We tackle these issues by introducing
  contrast learning, aiming to enhance both visual-level feature representation and
  semantic-level error tolerance.

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# Soft Aug Visual Module Projection PRO Prediction PRE Similarity Stop-grade

# **Selected Honors**

- 2021.12 Outstanding Graduate Student of Nanjing University
- 2021.11 Guorui Scholarship in Nanjing university (4 out of whole department)
- 2019-2022 First Prize of Academic Scholarship for three consecutive years in Nanjing university
- 2015-2018 The national inspirational scholarship for three consecutive years in Hunan University
- 2015-2017 Miyoshi students for two consecutive years in Hunan University
- 2018.04 First prize of Hunan university ACM
- 2018.04 Bronze medal in Hubei Province ACM

## **Skills, Activities and Advantages**

- CET-4: 525, CET-6: 498, IELTS: 7.0 (Listening: 6.5, Reading: 8.5, Writing: 6.0, Speaking: 6.0)
- CCF Certified Software Professional: 360 (1%)
- Teaching Assistant at Nanjing University: Data Structure, Fall 2020-2022
- Hardworking, Highly motivated