Tan Sihan

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EDUCATION

Ph.D
2024 − Present
Tokyo Institute of Technology, Tokyo, Japan
Systems and Control Engineering
Advisor: Nakadai Kazuhiro
Activity: Super Smart Society Promotion Consortium (SSS-WISE), Tokyo Tech

Master
2022−2024
Tokyo Institute of Technology, Tokyo, Japan
Systems and Control Engineering
Advisor: Nakadai Kazuhiro, Itoyama Katsutoshi
Activity: Super Smart Society Promotion Consortium (SSS-WISE), Tokyo Tech
Sole Top Graduate of Systems and Control Engineering

Bachelor
2017−2021
Dalian University of Technology, Dalian, China
International School of Information Science and Engineering
Advisor: Fan Xin
Outstanding Bachelor's Graduate

EMPLOYMENT

Invited Researcher
Year-Year: 2024−Present
NHK Science and Technology Research Laboratories

Research Assistant
Year-Year: 2022−2024
Tokyo Institute of Technology
Work with Nakadai Kazuhiro, doing research on sign language translation and human and robot interaction.

Internship
Year-Year: 2023−2024
NHK Science and Technology Research Laboratories
Supervised by Miyazaki Taro.

PUBLICATIONS

Selected Publications

- **Sihan Tan**, Taro Miyazaki, Katsutoshi Itoyama, and Kazuhiro Nakadai. 2024. SEDA: Simple and Effective Data Augmentation for Sign Language Understanding. In Proceedings of the LREC-COLING 2024 11th Workshop on the Representation and Processing of Sign Languages: Evaluation of Sign Language Resources, pages 370–375, Torino, Italia. ELRA and ICCL.
- Taro Miyazaki, **Sihan Tan**, Tsubasa Uchida, and Hiroyuki Kaneko. 2024. Sign Language Translation with Gloss Pair Encoding. In Proceedings of the LREC-COLING 2024 11th Workshop on the Representation and Processing of Sign Languages: Evaluation of Sign Language Resources, pages 262–268, Torino, Italia. ELRA and ICCL.
- **Sihan Tan**, Khanum Khan Nabeela, Katsutoshi Itoyama, Kazuhiro Nakadai. Improving Sign Language Understanding Introducing Label Smoothing[C]//2023 32nd IEEE International Conference on Robot and Human Interactive Communication (RO-MAN). IEEE, 2023: 113-118.

AWARDS AND HONORS

Miura Award

Year: 2024
The Japan Society of Mechanical Engineers

Outstanding Paper Presentation
Year: 2024
Tokyo Institute of Technology

INVITED TALKS

Current status of sign language datasets
Date: 2023.08
Speech-based communication for robots and systems, 32nd IEEE International Conference on Robot and Human Interactive Communication (RO-MAN 2023)

Introduction of sign language processing
Date: 2023.03
Pohang University of Science and Technology, Pohang, South Korea

SKILLS

Software: Python, TensorFlow, PyTorch, Linux, Matlab, C, C++
Languages: Mandarin Chinese (native), English (full professional working proficiency), Japanese (professional working proficiency)

REFERENCES

Nakadai Kazuhiro
Professor, IEEE Fellow
Tokyo Institute of Technology, Systems and Control Engineering
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Miyazaki Taro
Expert in Smart Production Research Division
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