

Sihan Tan

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EDUCATION

Tokyo Institute of Technology, Tokyo, Japan
Ph.D. Student in Systems and Control Engineering 04/2024 - Present
Advisor: Kazuhiro Nakadai
Activity: Tokyo Tech Academy for Super Smart Society ([WISE-SSS](#))

Tokyo Institute of Technology, Tokyo, Japan
Master in Systems and Control Engineering 04/2022 - 03/2024
Advisor: Kazuhiro Nakadai, Katsutoshi Itoyama
Activity: Tokyo Tech Academy for Super Smart Society ([WISE-SSS](#))
**Sole Best Graduate of Systems and Control Engineering*

Dalian University of Technology, Dalian, China
B.E. in Digital Media Technology 09/2017 - 07/2021
Advisor: Xin Fan
**Outstanding Bachelor's Graduate*

WORK EXPERIENCE

Visiting Researcher
Sign language translation 08/2024 - Present
Work with Sign Language Technology Team,
NHK Science and Technology Research Laboratories, Japan Broadcasting Corporation (NHK).

Research Assistant
Sign language recognition, translation and human-robot interaction 04/2022 - Present
Work with Kazuhiro Nakadai,
Nakadai Laboratory, Tokyo Institute of Technology.

Internship
Sign language translation 08/2023 - 03/2024
Supervised by Taro Miyazaki,
NHK Science and Technology Research Laboratories, Japan Broadcasting Corporation (NHK).
**Boosted the laboratory-level collaboration (starts at 08/2024)*

Research Assistant
Unsupervised WiFi-based Human Activity Recognition via Cross-modal Transfer 12/2019 - 07/2021
Work with Xin Fan and Lei Wang,
Wilna Laboratory, Dalian University of Technology.

PUBLICATIONS

Selected Publications

[SEDA: Simple and Effective Data Augmentation for Sign Language Understanding](#)

Sihan Tan, Taro Miyazaki, Katsutoshi Itoyama, Kazuhiro Nakadai.

In *Proceedings of the LREC-COLING 11th Workshop on the Representation and Processing of Sign Languages: Evaluation of Sign Language Resources*(sign-lang), 2024.

[Sign Language Translation with Gloss Pair Encoding](#)

Taro Miyazaki, **Sihan Tan**, Tsubasa Uchida, and Hiroyuki Kaneko.

In *Proceedings of the LREC-COLING 11th Workshop on the Representation and Processing of Sign Languages: Evaluation of Sign Language Resources*(sign-lang), 2024.

[Improving Sign Language Understanding Introducing Label Smoothing](#)

Sihan Tan, Khanum Khan Nabeela, Katsutoshi Itoyama, Kazuhiro Nakadai.

In *Proceedings of the 32nd IEEE International Conference on Robot and Human Interactive Communication (RO-MAN)*, 2023.

AWARDS AND HONORS

Miura Award

2024

The award for outstanding graduates in the master's or doctoral programs, funded by Miura Corporation.

Given annually to one nominee from each department.

Issued by: The Japan Society of Mechanical Engineers.

Outstanding Paper Presentation

2024

The award for my master's thesis is *Sign Language Recognition and Translation Using Deep Learning*.

Issued by: Tokyo Institute of Technology

INVITED TALKS

Current status of sign language datasets

08/2023

Half day workshop, Speech-based communication for robots and systems,

32nd IEEE International Conference on Robot and Human Interactive Communication, Busan, South Korea.

Introduction of sign language processing

03/2023

Pohang University of Science and Technology, Pohang, South Korea.

SKILLS

Software: Python, PyTorch, TensorFlow, Linux, Matlab, C, C++

Languages: Mandarin Chinese (Native), English (CEFR: C1), Japanese (JLPT: N2), Japanese Sign Language (Learning).

REFERENCES

Kazuhiro Nakadai

Professor (IEEE Fellow)

Department of Systems and Control Engineering, School of Engineering

Tokyo Institute of Technology

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Xin Fan

Professor, Dean

School of Software Technology and International School of Information Science and Engineering

Dalian University of Technology

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