

Tan Sihan

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EDUCATION

Tokyo Institute of Technology, Tokyo, Japan

Ph.D. in Systems and Control Engineering

04/2024 - Present

Advisor: Nakadai Kazuhiro

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: Nakadai Kazuhiro, Itoyama Katsutoshi

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: Fan Xin

Outstanding Bachelor's Graduate

WORK EXPERIENCE

Research Collaborator

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 Nakadai Kazuhiro,

Tokyo Institute of Technology.

Internship

Sign language translation

08/2023 - 03/2024

Supervised by Miyazaki Taro,

NHK Science and Technology Research Laboratories, Japan Broadcasting Corporation (NHK).

Research Assistant

Unsupervised WiFi-based Human Activity Recognition via Cross-modal Transfer

12/2019 - 07/2021

Work with Fan Xin,

Wilna Lab, 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.

Give 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 (C1), Japanese (N2), Japanese Sign Language (Learning).