CHIHIRO NAKATANI

PhD student at Toyota Technological Institute
◇ Last Update February 25, 2026
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HIGHLIGHTS

- Strong publications including first-authored CVPR and ICCV papers.
- Practical experience as an Analyst for a professional baseball team and ML Engineer at startups.
- International experience as a Visitor at Idiap Research Institute.

EDUCATION/AFFILIATION

Toyota Technological Institute, Japan *April 2023 - present*
Ph.D. candidate, Advisor: Prof. Norimichi Ukita

Idiap Research Institute, Switzerland *April 2025 - June 2025*
Visitor, Advisor: Prof. Jean-Marc Odobez

Toyota Technological Institute, Japan *April 2021 - March 2023*
Master of Engineering (Graduated at the top of the class)

Toyota Technological Institute, Japan *April 2018 - March 2021*
Bachelor of Engineering (Early entry to Master's program via grade skipping)

RESEARCH INTEREST

My research interests lie in computer vision for group activity understanding, in particular, joint attention estimation, group activity recognition, gaze estimation, and self-supervised (unsupervised) learning.

RESEARCH PROJECTS

Weakly/Self-supervised Group Activity Feature Learning *CVPR* 2024, *CVIU* 2026
The project tries to extract features representing group activity without group activity labels. Difference from group activity recognition in which manually defined course group activity classes are used, fine-grained group activity can be learned in this work. We proposed employing person action/feature prediction as pretext tasks to learn group activity features.
Paper link

Joint Attention Estimation Using People Attributes *ICCV* 2023
The project focuses on estimating attention shared by multiple people. While previous methods use high-dimensional image features as cues for the estimation, we proposed using low-dimensional person attributes (e.g., location, gaze direction, and action) to consider interactions between multiple people.
Paper link

PUBLICATIONS

R. Tezuka, **C. Nakatani**, Norimichi Ukita
Group-DINOmics: Incorporating People Dynamics into DINO for Self-supervised Group Activity Feature Learning
Proc. of IEEE International Conference on Computer Vision (CVPR2026) Findings, June, 2026.

C. Nakatani, H. Kawashima, N. Ukita
Human-in-the-loop Adaptation in Group Activity Feature Learning for Team Sports Video Retrieval
Computer Vision and Image Understanding, vol.263, pp. 104577, 2026.

K. Yokoyama, **C. Nakatani**, Norimichi Ukita
Dynamic Group Detection using VLM-augmented Temporal Groupness Graph
Proc. of IEEE International Conference on Computer Vision (ICCV2025), October, 2025.

C. Nakatani, H. Kawashima, N. Ukita
Learning Group Activity Features Through Person Attribute Prediction
Proc. of IEEE Conference on Computer Vision & Pattern Recognition (CVPR2024), June, 2024.

C. Nakatani, H. Kawashima, N. Ukita
Interaction-aware Joint Attention Estimation Using People Attributes
Proc. of IEEE International Conference on Computer Vision (ICCV2023), October, 2023.

C. Nakatani, H. Kawashima, N. Ukita
Joint Learning with Group Relation and Individual Action Proc. of the 18th International Conference on Machine Vision Applications (MVA2023), July, 2023.

C. Nakatani, K. Sendo, N. Ukita
Group Activity Recognition Using Joint Learning of Individual Action Recognition and People Grouping
Proc. of the 17th International Conference on Machine Vision Applications (MVA2021), July, 2021.

SKILLS

Programming	Python, MATLAB, HTML, CSS, JavaScript, SQL
Machine learning framework	Pytorch, Tensorflow
Software & Tools	Latex, Git

WORK EXPERIENCES

Playbox *October 2025 - March 2026*
Machine Learning Engineer (Remote)
Topics: Action spotting

Hokkaido Nippon-Ham Fighters *April 2024 - September 2024*
Sports Analyst Internship (Onsite)
Topics: Action quality assessment

OptFit Corporation *October 2019 - June 2020*
Machine Learning Engineer (Remote)
Topic: Human pose estimation

Activate Data Corporation *April 2019 - September 2019*
Machine Learning Engineer (Remote)
Topic: Object detection

SERVICES

Reviewer: CVPR2024, CVPR2025, CVPR2026. ICCV2025, ICMI2025

AWARDS

JST ASPIRE Kyoto Workshop Poster Award *July 2025*
IEEE Nagoya Branch International Conference Research Presentation Award *April 2024*
SICE Outstanding Student Award *March 2023*

GRANTS

Scholarship offered by The Toyoaki Scholarship Foundation *April 2023 - March 2025*
Travel grant of Telecommunications Advancement Foundation *April 2024*
Travel grant of Tateishi Science and Technology Foundation *October 2023*
Toyota Foundation Scholarship, *April 2018 - March 2021*