

JIHOON OH (呉 知勲)

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EDUCATION

The University of Tokyo Ph.D. in Creative Informatics, JSK Lab (Advisor: Prof. Kei Okada)	Tokyo, Japan 04/2025 - 03/2028 (Expected)
The University of Tokyo M.Eng. in Mechano-Informatics, JSK Lab (Advisor: Prof. Kei Okada) ◦ [Thesis] [Video]	Tokyo, Japan 04/2022 - 03/2025
Tokyo Institute of Technology (now Institute of Science Tokyo) B.Eng. in Mechanical Engineering (Military Service: 09/2017 - 08/2019)	Tokyo, Japan 04/2016 - 03/2022
Japan-Korea Joint Government Scholarship Program MEXT Scholarship Program (Preparatory Education: 03/2015 - 03/2016)	Japan/Korea 03/2015 - 03/2022

PROFESSIONAL EXPERIENCE

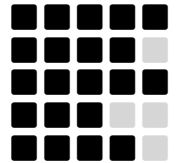
AIROA Robot Foundation Model Competition Development Team Member ◦ Participated in robot foundation model competition organized by AI Robot Association (AIROA) ◦ Responsible for data generation, processing, and VLA model design	Tokyo, Japan 04/2025 - 07/2025
The University of Tokyo Technical Assistant - Moonshot R&D Program ◦ Developed imitation learning and robot vision systems for Moonshot research project ◦ Developed and supported robot demonstrations at ICRA2024 Moonshot booth in Yokohama	Tokyo, Japan 02/2024 - 03/2025
Bosch Japan Student Intern - Driver Experience Department ◦ Analyzed driving data for automatic driving model design in XC/DX Department ◦ Worked in Cross Domain Computing Solution division	Tokyo, Japan 08/2022 - 09/2022
AWS Japan Student Intern - Solution Architect ◦ Participated in cloud service design projects for security and database deployment	Tokyo, Japan 09/2022

RESEARCH EXPERIENCE

Large-scale Affordance Dataset and Affordance Foundation Model Graduate Researcher ◦ Constructed largest-scale affordance dataset using Ego-centric SfM and 4D Hand-Object-Scene Reconstruction from 2D human videos ◦ Developed Vision-Language-Affordance model for predicting visual affordances and interaction trajectories ◦ To be submitted to Conference on Computer Vision and Pattern Recognition (CVPR2026)	JSK Lab, UTokyo 2024 - Present
Robotic Manipulation Learning with Foundation Models Graduate Researcher ◦ Applied foundation models with general knowledge to robot manipulation learning ◦ Contributed to Open X-Embodiment collaboration, providing datasets for VLA models like RDT-1B	JSK Lab, UTokyo 2022 - Present
Dynamic Parameter Error Identification of Throwing Robot Undergraduate Researcher ◦ Modeled throwing error in robot dynamics parameters ◦ Identified optimal dynamics parameters through sensitivity analysis	Tokyo Institute of Technology 2021

TECHNICAL SKILLS

Programming (Python, C/C++)
Machine Learning (PyTorch, JAX, CUDA, DeepSpeed)
Robotics (ROS/ROS2)
Cloud Computing (AWS, Azure, Docker, Kubernetes)
Languages (Korean: Native, Japanese: JLPT N1, English: TOEFL 92)



SOFTWARE DEVELOPMENT

- **deep_vision_ros**: ROS wrapper for SOTA vision models (GroundingDINO, SAM, YOLO-World) - [GitHub](#)
- **eus_imitation**: EusLisp-based imitation learning library - [GitHub](#)

AWARDS & HONORS

- Japan-Korea Joint Government Scholarship - 5-year tuition support and 120,000 JPY/month living allowance (2015 - 2022)
- Hakuseikai Excellence Award, Tokyo Tech Mechanical Engineering Alumni Association - Academic Excellence Award (2021)
- Robotics Society of Japan Outstanding Student Award - Academic Excellence Award (2022)
- Heiwa Nakajima Foundation Scholarship - 150,000 JPY/month living allowance (2023 - 2024)

PUBLICATIONS

Peer-reviewed Papers

- Open X-Embodiment Collaboration (200+ authors including [J. Oh](#)), “Open X-Embodiment: Robotic Learning Datasets and RT-X Models,” *ICRA2024*, pp. 6892-6903, 2024. **Best Conference Paper Award, Finalists of Best Paper Award in Robot Manipulation** [[Paper](#)] [[arXiv](#)] [[Project](#)]
- T. Makabe, [J. Oh](#), et al., “Development of Amphibious Humanoid Platform for Sensor-based Behavior Acquisition,” *IEEE Humanoids 2022*, pp. 526-533. [[Paper](#)]

Domestic Conference Papers (Non Peer-reviewed)

- [呉知勲](#), 河原塚健人, 石田寛和, 岡田慧, 稲葉雅之, “実時間物体追跡を用いた視覚的变化にロバストなロボットの Visuomotor 方策獲得システム,” 第 41 回日本ロボット学会学術講演会論文集, 1K3-07, 仙台, 2023 年 9 月. [[Paper](#)]
- [呉知勲](#), 舩屋賢, 岡田昌史, “感度解析に基づく投擲ロボットの動力学パラメータ誤差同定と投擲の最適化,” *Robomech 2022*, 2A1-N04. [[Paper](#)]

Papers Under Review

- K. Kawaharazuka, [J. Oh](#), J. Yamada, I. Posner, Y. Zhu, “Vision-Language-Action Models for Robotics: A Review Towards Real-World Applications,” *IEEE Access*, 2025. [[Paper](#)] [[Project](#)]