Yuki Tanaka

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🌐 https://sites.google.com/view/yuki-tanaka/home

Employment History

Jul. 2024 – Mar. 2025	**Research Assistant** Knowledge and Information Research Team, National Institute of Advanced Industrial Science and Technology (AIST), Japan
Jun. 2025 – Sep. 2025	**Summer Intern** Data Science Summer Institute (DSSI) at the Advanced Manufacturing Laboratory (AML) in the Lawrence Livermore National Laboratory (LLNL), Livermore, California, U.S.

Education

Apr. 2023 – Mar. 2025	**M. S. in Engineering, Keio University, Graduate School of Science and Technology**, Japan. Thesis title: *Transition Model and Control Framework for Environment-Adaptive Robotic Systems*.
Apr. 2018 – Mar. 2023	**B. S. in Engineering, Keio University, Faculty of Science and Technology**, Japan. Thesis title: *Motion-Copying System for Motion Generation Using Machine Learning*.
Apr. 2015 – Mar. 2018	**Horikawa High School**, Japan.

Research Publications

Journal Articles

1. **Y. Tanaka** and S. Katsura, "Sensorless reaction torque regulation of multi-dof industrial manipulator using gated recurrent unit-based virtual environment quarrier," *IEEJ Journal of Industry Applications*, vol. advpub, p. 24 004 534, 2024. 🔗 DOI: 10.1541/ieejjia.24004534.

2. S. Yamaguchi, **Y. Tanaka**, and S. Katsura, "Contactless environmental impedance estimation: Image-based approach using confidence scores of object detection model," *IEEJ Journal of Industry Applications*, vol. advpub, p. 24 003 156, 2024. 🔗 DOI: 10.1541/ieejjia.24003156.

Conference Proceedings

1. **Y. Tanaka**, S. Yamaguchi, and S. Katsura, "Visualization of environmental information based on mdk channels in a two-dimensional plane," in *2024 IEEE 18th International Conference on Advanced Motion Control (AMC)*, 2024, pp. 1–6. 🔗 DOI: 10.1109/AMC58169.2024.10505647.

2. **Y. Tanaka** and S. Katsura, "A voice-controlled motion reproduction using large language models for polishing robots," in *2023 IEEE International Conference on Mechatronics (ICM)*, 2023, pp. 1–6. 🔗 DOI: 10.1109/ICM54990.2023.10101966.

3. **Y. Tanaka** and S. Katsura, "Task switching model for acceleration control of multi-dof manipulator using behavior trees," in *IECON 2023- 49th Annual Conference of the IEEE Industrial Electronics Society*, 2023, pp. 1–6. 🔗 DOI: 10.1109/IECON51785.2023.10311686.

Skills

Languages	▮	Reading, writing, and speaking Japanese and English.
Coding	▮	C, C++, Python, MATLAB, LaTeX
Misc.	▮	Robotics, AI, ML, Data science.

Miscellaneous Experience

Awards and Achievements

2022	▮	**Excellent Presentation Award**, The Institute of Electrical Engineers of Japan (IEEJ).
2024	▮	**Excellent Paper Presentation Award (International Workshop)**, IEEJ, Industry Applications Society.