Shunya Tadano

Building-M.A.E. 523, 6-6-01 Aoba, Aramaki, Aoba-ku, Sendai, Miyagi, Japan, 980-8579
Graduate School of Engineering, Tohoku University
+81-90-6259-3458 • shunya.tadano@gmail.com
researchmap.jp/shunya_tadano • shunyatadano/ • shunyatadano/

Research Interests

Robotics, Human-Robot Interaction, Computer Vision, Social Navigation, Gaze Estimation

Education

Tohoku University, Graduate School of Engineering **Sendai, Japan**
Ph.D. Course in Robotics *April 2025 – Present*
Research focus: Social navigation systems for human-robot interaction in crowded environments.
Advisor: Assoc. Prof. Yusuke Tamura

Tohoku University, Graduate School of Engineering **Sendai, Japan**
Master of Engineering in Robotics, GPA: 3.7/4.0 *April 2023 – March 2025*
Thesis: "Pedestrian Trajectory Prediction Considering Visual Attention and Behavioral Uncertainty."

Iwate University, Faculty of Science and Engineering **Morioka, Japan**
Bachelor of Engineering in Systems Innovation Engineering, GPA: 3.6/4.0 *April 2019 – March 2023*
Graduation Thesis: "Knife Operation Support System for Hemiplegic Patients Using Skeleton Estimation

Work Experience

Reazon Human Interaction Laboratory **Tokyo, Japan**
Engineer Intern *July 2025 – August 2025*
Development on Navigation System for Real-Time Dialogue Translation Tool & OSS Robot Arm Project

Teaching Assistant **Tohoku University**
Creative Engineering Training *October 2024 – February 2025*
Prototyping LEGO MindStorm and havingrobot competition

Teaching Assistant **Tohoku University**
Tohoku University Engineering Summer Program *July 2024*
Hackathon and presentation in two-week summer program for international students

Teaching Assistant **Tohoku University**
Laboratory Experiment II *October 2023 – February 2024*
Assistant for kinematics control for 3 DoF manipulator

Technical Skills

Programming Languages: Python, C++
Robotics Frameworks: ROS/ROS2
Simulation Tools: Gazebo
Machine Learning Libraries: OpenCV, TensorFlow
Hardware Skills: Sensors such as LiDAR, RGBD-cameras, 360 degree camera, IMUs, etc.
Other Skills: CAD software (e.g., SolidWorks, Fusion), 3D printing, navigation algorithms, etc.

Publications

1. **Shunya Tadano**, Yusuke Tamura, Yasuhisa Hirata, "Safe and Efficient Navigation for Texting Pedestrians via Attention-Aware Cost-map Tuning, " **Submitted for review to** *2026 IEEE/SICE International Symposium on System Integration (SII). IEEE, 2026 in Cancun, Mexico.*
2. **Shunya Tadano**, Yusuke Tamura, Yasuhisa Hirata, "Detecting Distracted Pedestrians Using 3D Skeletal Information for Autonomous Mobile Robots," *The 43rd Annual Conference of the Robotics Society of Japan (RSJ2025) in Tokyo University of Science, Ookayama Campus, Japan.*
3. **Shunya Tadano**, Yusuke Tamura, Yasuhisa Hirata, "Collision Avoidance for Mobile Robots with Attention-Aware Cost Map Generation," *The Robotics and Mechatronics Conference 2025 (ROBOMECH2025)* in Yamagata, Japan.
4. **Shunya Tadano**, Yusuke Tamura, Yasuhisa Hirata, "Posture Information Integration into Pedestrian Trajectory Prediction Considering Uncertainty," in *The Robotics and Mechatronics Conference 2024 (ROBOMECH2024)*, 2024 in Utsunomiya, Japan.
5. **Shunya Tadano**, Yusuke Tamura, Yasuhisa Hirata, "Pedestrian Trajectory Prediction with Pose Estimation and Monte Carlo Dropout," in *IEEE International Conference on Robotics and Automation (ICRA2024), Late Breaking Result Poster.* , 2024 in Yokohama, Japan.

Awards

1st Prize, Japan-WIDE Sustainable Aviation Fuel and its Infrastructure Development, Boeing University Externship Summer Seminar 2024

National Runner Up, ARALA -Additive Robotic Attachment for Lab Automation-, JAMES DYSON AWARD 2024

Grants and Scholarships

2025 – 2028: AGS RISE Program Research Fellowship for Young Scientists —1,500,000 JPY

2023 – 2025: Sky Ōura ICT Scholarship Foundation Scholarship —2,000,000 JPY per year

2022 – 2023: 2022 Iwate Katada Foundation Bachelor's Thesis Research Grant —100,000 JPY

2021 – 2022: JGC-Saneyoshi Scholarship Foundation —400,000 JPY

Languages

Japanese: Native

English: Intermediate(Buisiness Level)

References

Assoc. Prof. Yusuke Tamura (ytamura@tohoku.ac.jp): Associate Professor, Graduate School of Engineering, Tohoku University, Japan. (Current advisor)

Prof. Yasuhisa Hirata (yasuhisa.hirata.b1@tohoku.ac.jp): Professor, Graduate School of Engineering, Tohoku University, Japan. (Laboratory Collaborator)

MISC

1. 長岡瞬，**只野竣也**，田嶋真也，釱持優人, "学生編集委員会取材企画：リビングロボットに訊く！「あるくメカトロウィーゴ」と歩む未来," 日本ロボット学会誌,*43(4), 543-547*, 2025. (in Japanese)
2. 釱持優人，**只野竣也**，長岡瞬，山本晃平,"学生編集委員会取材企画：株式会社弘栄ドリームワークス「配管くん」最先端配管点検ロボットの秘密に迫る," 日本ロボット学会誌,*42(6), 543-547*, 2024. (in Japanese)