

Jeremy Siburian

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 Jeremy Siburian |  jsiburian |  jeremy_dasa

Tokyo, Japan

EDUCATION

- **The University of Tokyo** Apr 2025 - Mar 2027 (Expected)
Master of Engineering in Technology Management Tokyo, Japan
 - Advisor: [Prof. Yusuke Iwasawa](#), [Tatsuya Matsushima](#)
- **Waseda University** Mar 2025
Bachelor of Engineering in Mechanical Engineering, Minor in Computer Science Tokyo, Japan
 - Advisor: [Prof. Shigeki Sugano](#), [Alexander Schmitz](#)

RESEARCH EXPERIENCE

- **Matsuo-Iwasawa Lab, The University of Tokyo**  Apr 2025 - Present
Graduate Student Researcher, advised by Prof. Yusuke Iwasawa and Tatsuya Matsushima Tokyo, Japan
 - Ongoing research on skill learning and adaptation for contact-rich manipulation tasks via retrieval-based policy learning and multimodal representation learning (vision, tactile, etc.).
- **OMRON SINIC X Corporation**  Oct 2023 - Mar 2024, Febr - Apr 2025
Robotics Research Intern, mentored by Masashi Hamaya and Cristian C. Beltran-Hernandez Tokyo, Japan
 - Developed ViLaIn-TAMP, a hybrid planning framework which leverages vision-language models (VLMs) and an integrated TAMP module for long-horizon manipulation tasks. Proposed a corrective planning architecture for grounding VLMs with motion failure reasoning, evaluated across multiple manipulation tasks in a cooking domain. Paper under review at CoRL 2025 and available on ArXiv.
 - Proposed an integrated task and motion planning (TAMP) module for executing long-horizon cooking tasks by leveraging symbolic task planning and multi-stage motion planning. Developed a full system demonstration for a dual-arm slicing task using reinforcement learning.
 - Presented our system at the Cooking Robotics Workshop at ICRA 2024, received the Best Video Award.
- **Sugano Lab, Waseda University**  Apr 2023 - Sep 2024
Undergraduate Researcher, advised by Prof. Shigeki Sugano and Alexander Schmitz Tokyo, Japan
 - Researched on various model-based and learning-based slip detection algorithms using tactile sensors for manipulation tasks requiring force control.

INDUSTRY EXPERIENCE

- **Daimler Trucks Asia**  April - September 2023
Manufacturing Engineering Intern, supervised by Mr. Li-Chieh Richard Chen Kanagawa, Japan
 - Developed a robotic bin picking system for assembly line deployment using 3D tactile sensors for force control and slip detection. Managed an R&D budget of 1.5 million yen (Approx. \$10k USD).

PUBLICATIONS

- [3] **Jeremy Siburian***, Keisuke Shirai*, Cristian C. Beltran-Hernandez*, Masashi Hamaya, Michael Görner, Atsushi Hashimoto. **Grounded Vision-Language Interpreter for Integrated Task and Motion Planning**. Manuscript submitted to CoRL 2025. Available: <https://arxiv.org/abs/2506.03270>. [Project Page]
- [2] **Jeremy Siburian***, Cristian C. Beltran-Hernandez*, Masashi Hamaya. **Integrated Task and Motion Planning for Real-World Cooking Tasks**. ICRA 2024 Workshop on Cooking Robotics: Perception and Motion Planning. **Best Video Award** [Demo Video]. Available: <https://openreview.net/forum?id=5nGIW3Ixo1>
- [1] **Jeremy Siburian**, Alexander Schmitz, Tito Pradhono Tomo, Sophon Somlor, Gang Yan, Satoshi Funabashi, Shigeki Sugano. **Comparative Study of Robotic Slip Detection Algorithms using Distributed 3-Axis Tactile Sensing**. 42nd Annual Conference of the Robotics Society of Japan (RSJ) 2024.

SKILLS

- **Programming Languages:** Python, C++, Java, HTML, CSS
- **Robotics Software & Frameworks:** ROS, MoveIt, PDDLStream, PyBullet, MuJoCo, robosuite, IsaacLab
- **Libraries:** Numpy, Matplotlib, Scikit-learn, OpenCV, TensorFlow, Keras, PyTorch
- **Developer Tools:** Git, Git Tools (GitHub, GitKraken, GitLab), Docker, VS Code, PyCharm
- **Robots:** UR5e (Universal Robots), TM5-900 (Techman Robot)