Jonathan Setiawan

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SUMMARY / PROFESSIONAL OBJECTIVE

Aspiring robotics engineer skilled in computer vision, system design, and robotics automation. Experienced in building pipelines and systems connecting perception, control, and simulation for industrial and academic projects. Seeking opportunities to advance robotics expertise in Japan with the long-term goal of running my own business.

EDUCATION

Ritsumeikan University (立命館大学) **Osaka, Japan**
College of Information Systems Science and Engineering *Graduation Date: April 2028*

Kyoshin Language Academy (京進ランゲージアカデミー) **Kyoto, Japan**
Japanese Language Program: JLPT N4 and N3 Courses *Oct 2023 - March 2024*

SKILLS

Python, C++, Java, JavaScript/TypeScript, ROS2, Gazebo, MoveIt, OpenCV, YOLOv8, PyTorch, TensorFlow, SLAM, Docker, Git, React, Agile/Scrum, Conversational Level Japanese Communication

EMPLOYMENT HISTORY

ICOM技研株式会社 **Hyogo, Japan**
System Engineer Intern *Jul 2025 - Present*
UR5e Pick and Place System Project

- *Developed a robotic pick-and-place pipeline integrating YOLOv8 segmentation, OpenCV/ChArUco calibration, and Intel RealSense depth sensing to control a UR5e robot via Python and RTDE APIs.*
- *Implemented 3D pose estimation and coordinate transformation modules, enabling accurate real-time mapping from 2D images to robot base coordinates.*
- *Trained a custom YOLOv8 model with an accuracy of mAP50 ~0.995 and built a live centroid detection and segmentation program, enhancing precision and reliability of operations.*

PROJECT EXPERIENCE

Prompt To Gazebo Sandbox: AI-Powered ROS2/Gazebo Simulation Generator
Personal Project Based Learning Project *June 2025 - July 2025*

- *Built an AI tool that auto-generates ROS2/Gazebo environments from natural language prompts (.world, .urdf, .launch.py) and developed a web interface with Next.js + TypeScript + TailwindCSS and backend ROS2 template generation.*

Stray Cat Re-identification System using Siamese Neural Network
Project Based Learning 3 Course Project *April 2025 - July 2025*

- *Created a two-stage vision pipeline: YOLOv8 detector for cat identification + Siamese Neural Network (EfficientNetB3) for re-identification against a database with a re-identification accuracy of 0.90*
- *Built a full-stack system with Flask backend + React Native frontend, supporting stray cat TNR programs.*

OTHER EXPERIENCES

Ritsumeikan University (立命館大学) **Osaka, Japan**
RiOne Robotics Club Member *Jul 2024 - Present*

- *Built a ROS2 navigation pipeline on TurtleBot3 WafflePi, integrating Intel RealSense depth sensing, SLAM, and motion control scripts to improve autonomous navigation and obstacle avoidance. Competed at JapanOpen 2025 @Home League Competition with a danger detection and obstacle avoidance system*

AWARDS AND QUALIFICATIONS

村井シークス奨学金 **(Murai SIIX Scholarship)** *Apr 2025 – Mar 2026*

- Awarded by Ritsumeikan University and Murai SIIX Foundation for academic achievement, innovation potential, and contributions to international exchange in engineering fields.

JASSO Monbukagakusho Honors Scholarship *Apr 2024 – Mar 2025*

- Awarded for strong academic performance and leadership as an international student in Japan.

International English Language Testing System (IELTS) - *8.0 Overall Band Score* *Oct 2022*