

Advaith Sriram

sriram.advaith@gmail.com | [linkedin.com/in/advaith-sriram](https://www.linkedin.com/in/advaith-sriram) | advaithsriram.github.io | github.com/advaithsriram

EDUCATION

École Polytechnique Fédérale de Lausanne (EPFL)

Lausanne, Switzerland

M.Sc. in Robotics, Minor in Data Science – GPA: 5.03/6.00

Sep. 2024 – Sep. 2026

- Relevant Coursework: Legged Robots, Computational Motor Control, Aerial Robotics, Robotics for Manipulation, Model Predictive Control, Convex Optimization, Machine Learning, Computer Vision
- Teaching Assistant: Legged Robots [STI - Teaching Assistant Award], Mobile Robotics

Waseda University

Tokyo, Japan

B.E. in Mechanical Engineering, Minor in Computer Science – GPA: 3.84/4.00

Sep. 2019 – Sep. 2023

- Specialization in Robotics, Human-Robot Coexistence, Sugano Laboratory
- Bachelor's thesis research on large-object human-to-robot handover, published as co-first author at ICRA 2024

EXPERIENCE

Robotics Engineering Intern – M.Sc. Thesis

Mar. 2026 – Sep. 2026

Cybernetics Laboratory (CynLr) SA | EPFL LASA

Lausanne, Switzerland

- Developing an active perception and view planning framework to improve robustness of object manipulation under partial observability
- Project jointly supervised with EPFL's Learning Algorithms and Systems Laboratory (LASA)

Mechatronics Engineer

Oct. 2023 – Sep. 2024

Daimler Trucks Asia

Kanagawa, Japan

- Integrated a Position and Orientation System (POS-LV) sensor with ROS 2 to extract high-precision road geometry data, feeding the perception pipeline for a Highway Level-4 autonomous trucking program.
- Led migration of ROS 1 libraries to ROS 2, improving cross-platform compatibility and reducing long-term maintenance overhead across the vehicle control stack

PROJECTS

Next-Best-View Aerial Swarms for Multi-View Monitoring | Unity, Python, C#

Sep. 2025 – Jan. 2026

- Designed a multi-drone motion planning and monitoring framework comparing swarm control with NBV planning
- Implemented depth rendering, point cloud fusion, and PoinTr-based shape completion model in Unity

AI-Driven Choreography for ABB GoFa Robot | Python, C++, ROS 2

Feb. 2025 – Jun. 2025

- Built an interactive real-time system mapping instrumental music to expressive robot manipulation via a custom-trained Variational Autoencoder (VAE); integrated real-time hand-following using MediaPipe
- Exhibited at the **Swiss Design Awards 2025**, Basel, as lead developer

Reinforcement Learning for Legged Locomotion | Python, PyBullet, PPO, PyTorch

Sep. 2024 – Jan. 2025

- Designed reward, action, and observation spaces from scratch for a Unitree A1 quadruped; applied domain randomization via PPO to achieve stable locomotion over slopes, stairs, and gaps

PUBLICATIONS

Overcoming Hand and Arm Occlusion in Human-to-Robot Handovers | ICRA 2024

May 2024

- Co-first author; Proposed a multimodal DNN regression model predicting safe handover poses under occlusion; conducted all experiments, data collection, and analysis. DOI: 10.1109/ICRA57147.2024.10610777

TECHNICAL SKILLS

Languages: Python, C/C++, C#, MATLAB

Robotics & Control: ROS 2, Path Planning, Reinforcement Learning (PPO), Model Predictive Control

AI / ML: PyTorch, TensorFlow, VAEs, DNNs, OpenCV, TensorRT (Open-Source Contribution)

Simulation: PyBullet, MuJoCo, Unity, Gazebo

Tools & Platforms: Git, Docker, Linux, Jupyter

Robotic Platforms: Unitree A1, ABB GoFa, Flexiv, Humanoid Robots (Waseda Univ. - AIREC), CrazyFlie Drones

Languages: English (Native), Tamil (Native), Japanese (JLPT N3), French (Conversational)