Dan Ogawa Lillrank

Robotics Researcher/Software Engineer

Areas of specialization

Robotics Automation (Software)
- Manipulation
  - Inverse Kinematics
  - Trajectory Planning
  - (Deep) IL/RL in robotics
- Simulation:
  - IsaacSim
  - Mujoco (sim2real)
  - Drake
  - pybullet
- Navigation:
  - SLAM
  - Path Planning

Machine Learning
Reinforcement Learning (RL)
Imitation Learning (IL)
Computer Vision(CV)
Deep Learning(DL)
Vision Language Models

Programming

python	6+ years
C++	5 years
Matlab	3 years
Bash	
C	
LaTeX	

Technical

Linux, Pytorch, scikit-learn, ROS(Moveit!), OpenCV, PCL, CUDA, MPI, Docker, Git, Jira, Confluence, AWS

Languages

English	Fluent
Swedish	Native
Japanese	Native

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Short Resumé

2021–2024 — **Araya**
Chief Researcher · Tokyo, Japan
Neurotechnology R&D Unit, Deep Reinforcement Learning research team.
Working on Brain Machine Interface. Setup the full robotics stack from scratch as the only robotics expert. Franka robot arm was used with ROS+Moveit! and training Vision language models(VLM) to execute task specified by human brain signals. Supervised junior researchers and a research engineer for the above project. Team grew from 2 to 8.
Robotics manipulation, Python, pytorch, ROS, Mujoco, IsaacSim DL, RL, IL, CV, Diffusion models

2020-2021 — **Telexistence**
Robotics Software Engineer · Tokyo, Japan
Main software integrator for the automation team. Implemented Pick & Place workflow for the Model-T humanoid upper-torso robot by integrating perception and planning/control modules using ROS. Integration tested on the custom robot hardware. Integrated several custom grippers to the robot.
Humanoid robot, C/C++, Python, ROS, OpenCV, OpenRave,

Publications

2024 **A pragmatic look at deep imitation learning**,
Asian Conference on Machine Learning.

2024 **A comparison of visual and auditory EEG interfaces for robot multi-stage task control**
Frontiers in Robotics and AI

2019 **Registration algorithms for matching laser scans in robotics application**
Thesis work in KTH diva portal

Education

2019 — **KTH Royal Institute of Technology, Sweden**
M.Sc · Systems, Control & Robotics

2017 — **KTH Royal Institute of Technology, Swede**
B.Sc · Engineering Physics

2017 — **Kyoto University, Japan**
· Exchange student

Other Experiences

2021-2022 — **AIST National Institute of Advanced Industrial Science & Technology**
Technical Staff · Tokyo, Japan
Technical Staff/Research at AIST Automation Research team, working closely with Ogata lab. Utilizing Deep Predictive models for robot manipulation tasks.

2019-2020 — **Qbit Robotics**
Robotics Software Engineer · Tokyo, Japan
Integrating the Facial recognition & tracking system using ROS & Docker with python. Designed & implemented a multi-object tracking. Proposed & created a pipeline to store the customer tracking information in the cloud. Data-visualization was delivered to the sales team & store manager.