

SHUKRULLO NAZIRJONOV

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EDUCATION

Friedrich-Alexander-Universität Erlangen-Nürnberg (FAU)

M.Sc. in Autonomy Technologies (Perception, Control)

- ELLIS Winter School on Foundation Models (UvA), Deep Learning Summer School (TUM)

Erlangen, Germany
Oct. 2023 – Oct. 2026 (Expected)

Nagoya University

B.Eng. in Mechanical and Aerospace Engineering

Nagoya, Japan
Oct. 2018 – Mar. 2023

PUBLICATIONS & PREPRINTS

Better Slots, Better Worlds: Representation Quality & Robustness in Object-Centric World Models

2026

Shukrullo Nazirjonov, Sai Prasanna, Anna Manasyan, Georg Martius

World Models Workshop, Reinforcement Learning Conference

Visual Tactile Sensor Based Force Estimation for Position-Force Teleoperation

2023

Yaonan Zhu, Shukrullo Nazirjonov, et al.

IEEE Cyborg and Bionic Systems (Best Paper Finalist)

RESEARCH EXPERIENCE

Tübingen AI Center

Master Thesis Student, Advisor: Prof. Georg Martius

Tübingen, Germany
Oct. 2025 – July. 2026

- Researching causal **object-centric world models** for general-purpose robotic manipulation; designing architectures that learn control-relevant latent representations that help with long-horizon planning and OOD visual generalization

Chair of Automatic Control (FAU)

Student Research Assistant

Erlangen, Germany
Nov. 2024 – Nov. 2025

- Developed an open-source 3D semantic environment map and navigation system for Spot legged robot. [\[View Project\]](#)
- Built a voice-first robotics framework to translate natural language into motion plans for a **Franka Emika Panda**, utilizing **ROS 1**, **MoveIt**, and **LangChain**

Max Planck Institute for Intelligent Systems

Research Intern, Advisor: Prof. Georg Martius

Tübingen, Germany
Jul. 2023 – Sep. 2023

- Integrated intrinsically motivated model-based RL algorithm (**CEE-US**) on the physical and simulated **TriFinger** robot, successfully deploying model-based RL agent that learns from its curious exploration in real world.
- Optimized the real-time object tracking pipeline, achieving significant inference speed (50% faster) improvements and allowing multi-object pose tracking. [\[View Project\]](#)

Intelligent Robotics Lab (Nagoya University)

Undergraduate Research Student, Advisor: Prof. Yaonan Zhu

Nagoya, Japan
Oct. 2021 – Mar. 2023

- Trained image translation models (Pix2Pix, CycleGAN) to predict contact force maps from raw RGB tactile images.
- Contributed to **Meta AI's** open-source library **PyTouch**; investigated the impact of tactile sensing in robot learning.

INDUSTRY EXPERIENCE

Philips

Working Student Data Analyst

Munich, Germany
May 2024 – March 2026

- Integrated Machine Learning models for time series analysis (anomaly detection) on clinical data.
- Developed an automation tool for data annotation cutting manual effort by 40% and boosting throughput by 5x.

AKA Intelligence

Robotics Software Engineer Intern

Seoul, South Korea
Sep. 2022 – Apr. 2023

- Developed a full-stack navigation system for greenhouse robots using **ROS 1**, **Gazebo**, and **RTAB-MAP**.
- Built a perception system fusing **Detectron2** segmentation with 3D point clouds (**Open3D**).

SKILLS

Robotics: ROS 1 & 2, MuJoCo, Gymnasium, PyBullet, ManiSkill, MoveIt, RTAB-MAP

Programming: Python, C++, Git, Github Actions

Hardware: Jetson Nano, Franka Panda, TriFinger, Spot, LeRobot SO-101

AI & Compute: PyTorch, Docker, SLURM

ACHIEVEMENTS & VOLUNTEERING

2nd Place @ HuggingFace LeRobot Hackathon (2025): a voice-to-drawing collaborative robot artist using Nvidia GROOT 1.5 (Top 30 Global).

Volunteer at **18th European Workshop on Reinforcement Learning**.

REFERENCES

Prof. Dr. Georg Martius | Full Professor, Distributed Intelligence, University of Tübingen

✉ georg.martius@tuebingen.mpg.de

Prof. Dr. Yaonan Zhu | Assistant Professor, Matsuo-Iwasawa Lab, University of Tokyo

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