

Alexander Marc Spiridonov

✉ aspiridonov@gmx.de [aspiridon0v.github.io](https://github.com/aspiridon0v)

Education

- 09/2022 – 06/2025 **MSc. Robotics, Systems and Control, ETH Zurich**
final grade: 5.64
- 09/2019 – 09/2022 **BSc. Mechanical Engineering, ETH Zurich**
final grade: 5.5 (top 3%)

Publications, Preprints, and In-Preparation



- 2025 **Generalist Robot Manipulation Beyond Action Labeled Data,**
Conference on Robot Learning (CoRL) 2025
Alexander Spiridonov, Jan-Nico Zaeche, Nikolay Nikolov, Luc Van Gool, Danda Pani Paudel / [paper](#) [🔗](#) / [website](#) [🔗](#)
- 2024 **SpaceHopper: A Small-Scale Legged Robot for Exploring Low-Gravity Celestial Bodies,** *IEEE International Conference on Robotics and Automation (ICRA) 2024*
Alexander Spiridonov, Fabio Buehler, Moriz Berclaz, Valerio Schelbert, Jorit Geurts, Elena Krasnova, Emma Steinke, Jonas Toma, Joschua Wuethrich, Recep Polat, Wim Zimmermann, Philip Arm, Nikita Rudin, Hendrik Kolvenbach, Marco Hutter / [paper](#) [🔗](#) / [website](#) [🔗](#)
- 2025 **From Simulation to Parabolic Flight: Control and Validation of Legged Robotic Jumping in Microgravity,** *IEEE Transactions on Field Robotics (Under Review)*
Philip Arm*, Valerio Schelbert*, **Alexander Spiridonov***, Fabio Buehler, Moriz Berclaz, Jorit Geurts, Hendrik Kolvenbach, Fabian Tischhauser, Hendrik Kolvenbach, Marco Hutter / [website](#) [🔗](#) / [CNN Tech for Good](#) [🔗](#) / [BBC](#) [🔗](#)

Work Experience

- 06/2024 – 06/2025 **Graduate Research Fellowship, INSAIT**
 - Built scalable VLA pre-training infrastructure from scratch using JAX on TPUs
 - Proposed novel method for co-training with human and robot data
 - Published at [CoRL 2025](#) [🔗](#) , view the [code](#) [🔗](#)
- 11/2023 – 05/2024 **Research Assistant, Secure, Reliable, and Intelligent Systems Lab, ETH Zurich**
 - Built an evaluation framework for foundation models under the EU AI Act
 - Launch covered by [TechCrunch](#) [🔗](#) , [Reuters](#) [🔗](#) and 100+ stars on [github](#) [🔗](#)
- 11/2022 – 12/2023 **Research Assistant, Robotic Systems Lab, ETH Zurich**
 - Built the RL training and sim-to-real pipeline of SpaceHopper
 - Deployed in zero-gravity with the European Space Agency (ESA), [video](#) [🔗](#)

Other Selected Experience


- 06/2025 – Present **Robot Learning Lead, ETH Robotics Club, ETH Zurich**
 - Leading 15 students in the ETH Robotics Club on post-training VLAs for bi-manual dexterous manipulation

- | | |
|-------------------|--|
| 04/2023 – 06/2023 | Course Project, Optimization & Decision Intelligence Group, ETH Zurich <ul style="list-style-type: none"> • Worked on Safe Active Exploration in MDPs with correlated state-action pairs using Convex RL. / paper  / poster  |
| 09/2021 – 06/2022 | Focus Project, Robotic Systems Lab, ETH Zurich <ul style="list-style-type: none"> • Team Lead - Modeling & Control of SpaceHopper, helped build the software and control stack from the ground up |

Teaching Experience

- | | |
|-------------------|--|
| 02/2022 – 06/2022 | Teaching Assistant, Institute of Electromagnetic Fields
Taught exercise classes for the course Electronics and Circuits. |
| 09/2021 – 02/2022 | Teaching Assistant, Mechanics and Materials Laboratory
Taught exercise classes for the course Dynamics. |

Talks and Presentations

- | | |
|---------|---|
| 10/2025 | CoRL 2025 - Spotlight Talk,
<i>Talked about my paper Generalist Robot Manipulation Beyond Action Labeled Data</i> |
| 12/2022 | IIT Bombay, Ambassador for ETH Zurich at IIT Bombay Techfest 2022. |
| 05/2022 | TEDxThun, Talked about legged robots for the exploration of asteroids and moons
youtube  |

Awards

- | | |
|------|---|
| 2024 | ICRA 2024 Travel Grant, IEEE/RAS |
| 2019 | High School Graduate Award in Physics, German Physical Society |

Skills

Languages

German (native), English (native), Bulgarian (native), Russian (beginner), Latin (beginner)

Technical Skills

Languages: Python, C, C++, HTML, SQL, Javascript
Frameworks: PyTorch, JAX, CUDA, XLA, React, A-Frame, Three.js
Robotics Simulators: IsaacGym, IsaacSim, Mujoco, Pybullet, Sapien

Selected Courses

Mathematics:

Analysis I/II/III, Complex Analysis, Linear Algebra I/II, Probability Theory and Statistics

Computer Science:

Control Theory I/II, Models Algorithms and Data, Dynamic Programming and Optimal Control, Optimization for Data Science, Probabilistic Artificial Intelligence, Foundations of Reinforcement Learning, Machine Perception, Reliable and Trustworthy Artificial Intelligence