

Dario Spoljaric M.Sc.

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PROFESSION SUMMARY

With an outstanding academic background and diverse experience in agile hardware projects, I serve as the bridge between theory and practice. From programming and machine learning to prototyping, I develop solutions that are not only technically impressive but also truly inspiring. My focus lies in transforming innovative approaches into functional and sustainable results.

EDUCATION

TU VIENNA

AUSTRIA, Vienna

Master of Science in Automation and Robotic System

10.2022-03.2025

- focus on control engineering, robotics, and artificial intelligence.
- Gained practical experience through projects such as the Mechatronics and Robot Vision Project, with a strong emphasis on object recognition.
- master's thesis research on reinforcement learning-based locomotion for quadrupedal robots.

TU VIENNA

AUSTRIA, Vienna

Bachelor of Science in Electrical Engineering and Information Technology

2018-2022

- Acquired in-depth knowledge in electrodynamics, circuit design, programming, and control engineering during my studies.
- Expanded expertise by specialising on elective modules in drive technology and microelectronic devices.
- bachelor's thesis on the analysis of wave phenomena in birefringent materials

HTL RENNWEG

AUSTRIA, Vienna

High school diploma with focus on mechatronics

2012-2017

PROFESSIONAL EXPERIENCE

TU VIENNA, AUTONOMOUS SYSTEMS LAB. IN ICT

AUSTRIA, Vienna

Student Assistant Research Engineer

12.2024-present

- Development of a cost-effective 6-axis robot and control system via ROS.
- Responsible for procurement activities, 3D printing, and proof-of-concept solutions.

TU VIENNA, AUTONOMOUS SYSTEMS LAB. IN ICT

AUSTRIA, Vienna

Tutor

09.2024-12.2024

- Assisted in the lecture Robot Learning

TUW RACING TEAM

AUSTRIA, Vienna

PCB Designer | Head of Powertrain (volunteer)

01.2020-09.2022

- Led the Powertrain department for one year, with a focus on project management and administration.

- Development and manufacturing of high-voltage electronics and gained experience in hardware simulation.
- Acquired expertise in ARM chip programming, particularly in bus systems like SPI, RS232, and I2C.
- Played a significant role in acquiring new sponsors.

AUSTRIAN INSTITUTE OF TECHNOLOGY

High Image Processing Internship

AUSTRIA, Vienna

08.2019-09.2019

- responsible for assembling, testing, and packaging high-performance cameras.

JOHANNITER

CIVIL SERVICE

AUSTRIA, Vienna

10.2017-09.2018

ACKNOWLEDGEMENTS AND REWARDS

- **3x Performance Scholarship** for excellent academic achievements in 2021/22, 2022/23, 2023/24
- “Seeds for Future”(from HUAWEI) **Scholarship** for academic achievements in 2021/22

SKILLS

- **Languages:** English, German
- Analytic problem-solving
- Communicative
- **PCB-Design:** KiCAD, Eagle, LT Spice,
- **CAD-Design:** Creo, AutoCAD, Solidworks
- **Coding:** Python, Java, Matlab, C/C++
- **Core:** artificial intelligence, Reinforcement Learning, robotic, control theory, Robot Operating System (ROS), automation, Linux, Git

PROJECTS

Master thesis: Variable Stiffness for Robust Locomotion through Reinforcement Learning

Developed a novel control paradigm integrating variable stiffness into the action space of reinforcement-learned locomotion. The approach enabled grouped stiffness control (per-joint, per-leg, hybrid) and demonstrated superior velocity tracking, push recovery, and energy efficiency. Successfully transferred policies from simulation to real-world environments, achieving robust walking on diverse terrains without manual tuning of joint stiffness.

HOBBIES AND INTERESTS

- **Fitness:** Health is not just a hobby for me, but a lifestyle. Through regular strength training, I keep both my body and mind in balance.
- **Culture:** The ball season is a highlight of the year for me – dancing uniquely combines elegance, movement, and tradition.
- **Finances:** Money should work for me. I already invest strategically in ETFs and stocks to remain financially independent in the long run.
- **Personal Development:** Challenging books are a key to new perspectives for me.