

RICCARDO PERIOTTO

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SUMMARY

Software Engineer in robotics, combining strong foundations in Computer Science and Autonomous Systems with hands-on experience. Currently applying my skills to real-world robotics challenges in industrial automation.

SKILLS

Programming	C, C++, C#, Python, TypeScript, Java, R, Algorithms & Data Structures, OOP, .NET Framework, Django, React.js, Vue.js, Docker & Microservices, DDS, gRPC, MQTT, Unity, Git, CI/CD, HTML5, CSS, SQL & NoSQL
Mechatronics	ROS 2, Robotics, Automatic Control, Dynamic Modeling, Motion Planning, Sensor Fusion, SLAM, Gazebo, ArduPilot, Industry 4.0
AI & Modeling	JAX, PyTorch, TensorFlow, Machine Learning, Deep Learning, Reinforcement Learning, Unsupervised Learning, Probabilistic Methods, Bayesian Networks, MATLAB, Simulink, Maple

EXPERIENCE

Software Engineer for Robotics

Agile Robots SE

Dec 2023 – Present

Munich, Germany

- Developed backend and frontend features for [AgileCore](#), enabling faster deployment of automation solutions.
- After ~6 months, contributed to a **full product rewrite**, making key architectural decisions on communication protocols and interfaces, data persistence, database design, log management, user authentication and more.
- Collaborated closely with system integrators and application engineers, including **on-site validation in China**, to align software with real-world operational requirements.
- Designed and implemented machine tending applications for industrial robots, consistently meeting **production KPIs** (e.g., CNC exchange in ≤ 30 s) by optimizing robot parameters, motion paths, and speed profiles.
- Contributed to an external cross-department project based on a new C#/.NET stack with PLC integration, demonstrating **rapid learning and new technologies adaptability**.
- Led the full development of a Vue.js HMI for camera calibration, enabling users to efficiently collect image data and run calibration algorithms, **from requirements gathering to UX design and implementation**.

Research Intern

Ericsson

Jan 2023 - Jul 2023

Stockholm, Sweden

- Designed an optimization-based control algorithm for teleoperation, accounting for network delays and physical obstacles. Validation in simulation and hardware with 100% adherence to safety constraints.
- Built the project as the basis for my master's thesis, resulting in a first-author paper at ECC. [Thesis](#), [Paper](#)

Software Engineer

BM Group Polytec S.p.A.

Jan 2021 - Sep 2021

Trentino, Italy

- Worked on multiple projects in the company's software department, ranging from internal tools to cloud platforms and industrial automation systems.
- Implemented real-time data streaming from multiple IoT sensors for hydroelectric plants, handling high-frequency logging, storage, and visualization on dashboards; automated daily PDF reports for different stakeholders, improving operational monitoring and decision-making.
- Developed and deployed software for industrial robotics applications for customers such as Acciaierie d'Italia and Iperceramica, including on-site deployment and tuning to meet operational KPIs. See [video](#) to learn more.

EDUCATION

MSc in Autonomous Systems, EIT Digital

2023 - 2024

First year: University of Trento (UniTN), Second year: Royal Institute of Technology (KTH)

Focus on robotics and AI, with additional studies in entrepreneurship and business.

BSc in Computer Science, University of Trento

Sep 2017 - Jul 2020

Main subjects: Algorithms, Software Engineering Grade: 110/110 with honours

High School Diploma in Computer Science, ITT Marconi Rovereto

Sep 2014 - Jul 2017

Main subjects: Programming, Network Systems Grade: 100/100 with honours

ADDITIONAL INFORMATION

Projects: I share some of the main projects I built or contributed to on [GitHub](#). Feel free to check them out.

Languages: Italian (native), English (full professional proficiency), German (intermediate).