

Fabio Hübel

> PhD Student in Robotics & Autonomy

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// whoami

Robotics & control researcher at the interface of classical control and machine learning, focused on task-level autonomy, world models, and reinforcement learning for mobile robots.

// experience

Visiting Researcher

2025 – 2026

Stanford University · Autonomous Systems Lab

- › Agentic orchestration and full-stack embodied question answering for mobile robots on the DARPA TIAMAT project.

BMW Fastlane Scholar

2024 – 2025

BMW AG

- › Computer-vision street-model architectures for AV; RL / VLA finetuning for pick-and-place.

Student Software Engineer

2024

Vector Informatik GmbH

- › Custom compiler validation with fuzz-testing (.NET / C#).

Engineering Intern, R&D

2023 – 2024

Mercedes-Benz AG

- › Slip-control algorithm for clutch-based torque distribution in an EV drivetrain.

// education

PhD, Robotics & Autonomy

2026 – now

Stanford University

- › ASL (M. Pavone), with UC Berkeley (S. S. Sastry). DARPA TIAMAT.

MSc, Robotics, Systems & Control

2024 – 2026

ETH Zürich // 5.83 / 6.0, distinction

- › Research at ETH RSL & UZH RPG. Master's thesis (6.0): *Bridging Agentic Reasoning and Structured Execution: A Behavior-Tree VLM Framework and a Fidelity-Ladder Benchmark for Embodied Agents.*

BSc, Engineering Cybernetics

2020 – 2023

University of Stuttgart // 1.2 / 1.0, Honours

- › Control theory & dynamical systems. Thesis: automatic landing via fuzzy control.

// publications

FARM: Find Anything using Relational Spatial Memory

arXiv:2606.15476

Under review · CoRL 2026

He, Huang, Lilja, **Hübel**, Frey, Pavone, Sastry, Malik, Tomlin.

// service

Stanford German Student Association (SGSA)

2026 – now

Board Member, now Vice President

// stack

Python · C++ · C# · PyTorch · JAX · ROS2 · LLMs · VLMs · MuJoCo · IsaacSim · MATLAB · RL · MPC

lang: German (native) · English (IELTS 8.5) · Spanish (fluent) · French (basics)

// awards

🏆 **FIRST LEGO League** // 2× 1st Place Programming; World Festival 2017

🏆 **Vector Informatik Award** // BSc Honours, Engineering Cybernetics