

Paul Prevel

Senior robotics software engineer

My links



I am a robotics engineer, passionate about human-centric applications, the boundary between classical robotics and generative AI, bio-inspired learning and locomotion.

At biped.ai, I led the team that built the world’s first autonomous walking companion for blind and visually impaired people. The device was built from scratch (hardware & software platforms) and is currently used and distributed in 17 countries.

WORK EXPERIENCE

Senior software engineer

Adaptyv Biosystems - CH

2025- present

- Optimized data processing pipelines for protein testing, reducing runtime and error rates.
- Built integration layers between robotic arms and lab instruments, with vision based workspace calibration.

Lead robotics engineer, then CTO

Biped Robotics - CH

2022-2026

- Developed a 3D perception pipeline that performed obstacle detection, tracking, and localization at 10 fps on an edge computing device. Improved performance by 400%, and invented the first hole detection algorithm for a mobility device.
- Created an interface with a cloud-based VLM and approximations with a local semantic segmentation model to run offline. Optimized to achieve real-time performance in both cases.
- Implemented the tooling for the full lifecycle of an ML IOT device, including a software benchmarking system, a quality control system for assembly, remote software updates, monitoring, and maintenance.
- Managed a team of 4 engineers and balanced a roadmap between our main B2C product and multiple B2B pilot projects. Ensured the release of continuous customer-facing updates in between.
- Synchronized research projects (EPFL, Honda Research Institute), leading to paper submissions and clinical trials.

EDUCATION

MSc in Robotics

EPFL (biorob, LASA, DISAL)

2014-2021

- Focus on machine learning, mobile robots, computer vision, and optimization methods. Minor in Computational Neuroscience.
- Object recognition and demonstration learning for pick and place motions with a robotic arm
- Tactile exploration with a robotic hand to estimate the shape of an object and adapt the sampling strategy to maximize information gain
- Interfaced a legged wheeled robot with ROS to use existing terrain mapping algorithms, and implemented the perception pipeline to allow it to climb stairs.
- Robot-human interactions, to improve navigation planning with multiple robots in a human-populated environment.

SKILLS

Programming	Python (advanced), C++ (intermediate), rust (hobbyist)
Software	ROS1/2, Webots, Gazebo, CVAT, Docker, GCP, AWS, terraform, CI/CD
Hardware	Realsense, Rockchip architecture, IMU sensor, calibration
Linux	bash, systemd, dbus, debian packaging, bluetooth
Languages	French/Spanish (native), English (fluent)