

DAVID WEIS

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Robotics software engineer specialized in system robustness and performance.
Five years of safety-critical software development experience.

WORK

2020 – NOW

SOFTWARE ENGINEER, OXBOTICA.

Created platform for end-to-end regression testing focused on performance and behavior.

Worked on system performance and reliability across the autonomy stack.

Lead working group focused on observability (metrics, tracing, logging) of the entire platform.

C++, Python, OpenTelemetry, messaging systems, distributed observability

2019 – 2019

ROBOTICS ENGINEER, CASTA SPES TECHNOLOGIES LTD.

As the software lead for a robotics startup, developed a navigation stack and a fleet management platform for an autonomous security robot.

ROS, Python, Gazebo, Sensor Fusion

2016 – 2018

SOFTWARE ENGINEER, INSERTO AIR TRAFFIC SOLUTIONS

Co-ran a research lab, working on projects such as an AR application for monitoring airport equipment status in real time using the Microsoft HoloLens.

Worked closely with customers to deliver a safety-critical application for control of the Instrumental Landing System.

Improved QA processes by training developers in modern software testing techniques.

C#, WPF, ASP.NET, C++

2017 – 2018

LECTURER, VIA UNIVERSITY COLLEGE

Designed a curriculum and taught an introductory course in software engineering.

Teaching, Public speaking, Mentoring

PROJECTS

2017 – 2020

HOPPER

Iteratively designed and built an open source hexapod 3D printed robot with autonomous navigation stack.

ROS, OctoMap, SLAM, OpenCV, Rust

Link: github.com/dmweis/Hopper_ROS

2018 – NOW

VOLUNTEER, PREWIRED

Mentoring children in software and computer science. Organized a week-long hackathon, where participants could practice their skills against each other.

Mentoring, Leadership, Event organization

2017

MIXED REALITY RESEARCH, THE LEGO GROUP

Prototyped Mixed Reality games for LEGO toys and experiences. Won award for most innovative project.

Unity, Mixed reality, C#

EDUCATION

DECEMBER 2019

MSC. ROBOTICS AND AUTOMATED SYSTEMS, HERIOT-WATT UNIVERSITY

Participated in a competition for European Robotics League, building an assisted living robot.

Worked on real-time teleoperation platform for the Husky UGV.

Dissertation on obstacle detection and traversal for legged robots.

MoveIt, ROS, Python, NumPy

JANUARY 2018

B. ENG. INFORMATION AND COMMUNICATION ENGINEERING, VIA UNIVERSITY COLLEGE

Achieved award for most innovative bachelor project, on use of augmented reality for industrial applications.

Worked as a teaching assistant and was on committee of software engineering society.

Unity, VR, C#