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| Marco Casagrande  Fährstraße 69, 21107 Hamburg, Germany · +49 157 32886254  hire.marco.casagrande@outlook.com https://www.linkedin.com/in/marcocasagrande  <https://github.com/bighouwski/portfolio> |

# Experience

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| Jan 2024 - ongoingEmbedded Software Engineer- Abbott Automation Solutions GmbH Development and maintenance of medical-grade software embedded on ARM platforms for diagnostic labs automated systems. Focus on root cause analysis of on-market products. |
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| Mar 2023– Dec 2023Embedded Software Engineer- slashwhy GmbH, Germany Design, development and deployment of multi-agent software embedded on ARM platforms for industrial systems and applications. |
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| SEP 2021– FEB 2023Perception Algorithm Developer - MicroVision GmbH – formerly Ibeo Automotive Systems GmbH, Germany |
| Development of automotive perception algorithms based on LiDAR point cloud data, such as relative vehicle localization and lane marking extraction and tracking. |
| OCT 2019 – AUG 2021Working Student - ibeo Automotive Systems GmbH, Germany |
| Creation of simulation scenarios in *CarMaker* for testing autonomous driving functions. |
| MAY 2018 – SEP 2019 PROJECT ENGINEER - IBEO AUTOMOTIVE SYSTEMS GMBH, GERMANY |
| Validation of third-party perception stacks via a proprietary reference system, providing ground-truth data and related KPIs. |
| Aug 2016 – Jan 2017Engineering Intern – Robert Bosch GmbH, Germany |
| May 2011 – May 2014Jr. full-stack Developer – FB SERVICES Srl, Italy |

# Education

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| October 2019 – August 2021M. Sc. ICT Innovation, KTH Stockholm, TU Berlin Degree project: “Relative pose estimation of a plane on an airfield with automotive-class solid-state LiDAR sensors”, Grade 1.0 - GPA 4.0  Relevant courses: | |
| * Robotics * Laser Scanning Technologies | * Event-based robot vision * Reinforcement Learning |
| September 2014 – April 2018B. Sc. Information Engineering, HAW Hamburg Degree project: “Robust setup of an Autonomous Mobile Robot research platform with multi-sensor integration in ROS”, Grade 0.9 - GPA 4.0, HAW Best Graduate Award 2018  Relevant courses: | |
| * Software Engineering * Algorithms and Data Structures * Introduction to Computer Graphics | * Electronics * Microcontrollers * Digital Signal Processing |

# Skills

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| * Algorithm development * LIDAR sensor data * Robotics principles * Embedded software * Distributed systems * Agile development * Clean coding * Resources optimization | * Proficient: C++ 14/17/20, C, CMake, Unit-Testing, CI/CD, Git, ROS, MQTT, Linux, ARM * Familiar: Python, Docker, Qt, CAN communication, RTOS * Learning: Rust * Tools: Jira, Confluence, VS Code, GitLab, BitBucket, Azure DevOps * Proficient in German, English and Italian |

# Expectations

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| * Challenging and interesting tasks * Room for creativity * Training opportunities * Career possibilities * Working with modern technologies and tools | * Working occasionally from abroad * Family-friendly employer * Openness to discuss the status-quo and to improve existing processes |

# Other resources

References, degrees, awards as well as short videos of some projects I worked on are available on my portfolio page: <https://github.com/bighouwski/portfolio>