MARCO **CASAGRANDE**

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https://github.com/bighouwski/portfolio

EXPERIENCE

JAN 2024 - ONGOING
EMBEDDED 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.

MAR 2023– DEC 2023
EMBEDDED SOFTWARE ENGINEER- SLASHWHY GMBH, GERMANY
Design, development and deployment of multi-agent software embedded on ARM platforms for industrial systems and applications.

SEP 2021– FEB 2023
PERCEPTION 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 2021
WORKING 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 2017
ENGINEERING INTERN – ROBERT BOSCH GMBH, GERMANY

MAY 2011 – MAY 2014
JR. FULL-STACK DEVELOPER – FB SERVICES SRL, ITALY

EDUCATION

OCTOBER 2019 – AUGUST 2021

M. 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 2018

B. 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

- 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

- 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