João Marinho

📞 (+351) 911962226   @ joao.andre.marinho@gmail.com

in joaoamarinho   ⬛ JoaoAMarinho

Work Experience

▸ Continental Engineering Services, Ltd.
Software Engineer   Porto, Portugal   *Mar. 2022 – Jul. 2022*

- Evaluated the performance of a Reinforcement Learning model for HVAC systems, using Python to assess efficiency.
- Designed and implemented performance metrics and visualisation tools for tracking and analysing model outcomes.
- Proposed enhancements to the decision tree process, resulting in the selection of the most effective model version.
- <u>Skills</u>: Python, Machine Learning, Performance Testing, Data Visualisation, Reinforcement Learning.

Embedded Software Engineer   *Aug. 2021 – Sept. 2021*

- Developed a dynamic C++ interface, *Caravel*, to simulate a CAN network node, enabling CAN message transmission and supporting scripting for command automation.
- Contributed to cost reduction by tailoring a general tool to meet specific team needs.
- <u>Skills</u>: C++, CAN Bus, Embedded Software.

▸ Formula Student FEUP
Driverless Team Member   Porto, Portugal   *Oct. 2022 – Sept. 2023*

- Researched and implemented autonomous vehicle control algorithms, including PID and MPC controllers.
- Developed custom communication protocols using ROS nodes.
- Competed in the FS-AI class at the Formula Student UK competition, contributing to the team's victory in the FS-AI Business Presentation Award.
- <u>Skills</u>: Autonomous Vehicles, ROS, C++, Python, Linux, Teamwork, Time Management.

▸ Faculty of Engineering, University of Porto
Teaching Assistant   Porto, Portugal   *Oct. 2022 – Sept. 2023*

- Improved the automated exam and quiz correction process for the Functional and Logic Programming course.
- Implemented new pattern detection algorithms, leading to better feedback for students and more accurate outlier detection.
- Reorganised results into structured file formats, streamlining data management and facilitating easier analysis.
- <u>Skills</u>: Automation, Data Analysis, Pattern Recognition, Teaching Assistance.

Education

▸ Faculty of Engineering, University of Porto
M.Sc. in Informatics and Computing Engineering   Porto, Portugal   *Sept. 2019 – Jul. 2024*

▸ Chalmers University of Technology
Erasmus+ Program   Gothenburg, Sweden   *Aug. 2023 – Jan. 2024*

▸ Music Academy Viana do Castelo
Double Bass Basic Music Course   Viana do Castelo, Portugal   *2012 – 2016*

Skills

Programming Languages:	C/C++, Python (PyTorch, numpy, pandas, scikit-learn), JavaScript, SQL
Tools:	ROS, Git, Linux, Docker, Gazebo
Fields:	Software Engineering, Computer Vision, Autonomous Systems
Languages:	Portuguese (Native), English (C1 Advanced - Cambridge Certificate), Spanish (Conversational)

Interests

Areas: Problem Solving; Autonomous Vehicles; Machine Learning; Crossfit/Sports