

Work Experience

► Continental Engineering Services, Ltd.

Porto, Portugal

Software Engineer

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.
- › Skills: 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.
- › Skills: C++, CAN Bus, Embedded Software.

► Formula Student FEUP

Porto, Portugal

Driverless Team Member

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.
- › Skills: Autonomous Vehicles, ROS, C++, Python, Linux, Teamwork, Time Management.

► Faculty of Engineering, University of Porto

Porto, Portugal

Teaching Assistant

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.
- › Skills: Automation, Data Analysis, Pattern Recognition, Teaching Assistance.

Education

► Faculty of Engineering, University of Porto

Porto, Portugal

M.Sc. in Informatics and Computing Engineering – A (*European Grading Scale*)

Sept. 2019 – Jul. 2024

► Chalmers University of Technology

Gothenburg, Sweden

Erasmus+ Program

Aug. 2023 – Jan. 2024

► Music Academy Viana do Castelo

Viana do Castelo, Portugal

Double Bass Basic Music Course

2012 – 2016

Skills

Programming Languages: C/C++, Python (PyTorch, numpy, pandas, scikit-learn), JavaScript, SQL

Tools: ROS, Git, Linux, Docker, Gazebo

Fields: Deep Learning, Computer Vision, Autonomous Systems

Languages: Portuguese (Native), English (C1 Advanced - Cambridge Certificate), Spanish (Conversational)

Interests

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