



JOÃO MARAFUZ GASPAR

MSc Student in Electrical and Computer Engineering

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Contact

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Skills

- C & C++** 4+ yrs
- MATLAB** 3+ yrs
- L^AT_EX** 4+ yrs
- Python** 4+ yrs

Languages

- Portuguese** C2
- English** C1
- Spanish** B1
- French** A2

About

I am currently a Master's degree student in Electrical and Computer Engineering at Instituto Superior Técnico in Control, Robotics and AI track. I'm also serving as a Teaching Assistant and just started working on my Master's Thesis based on collaborative localization for satellite constellations. I have a great interest in IT, Mathematics and Robotics. I regard myself as very curious and motivated, namely, on and off my Master's degree courses, a keen focused and diligent leader, with a piece of solid and extensive engineering knowledge, and constantly seeking maximum stringency, yearning to address future challenges.

Experience

SY Technical Student CERN

Mar 2024 – Now

Characterisation and performance assessment of the Fast Beam Current Transformers (FBCT), capable of measuring the current of short (picosecond to microsecond) beam pulses, as well as the optimization of the used precision calibration procedures.

Teaching Assistant

Feb 2023 – Jul 2023

Instituto Superior Técnico, University of Lisbon

Giving laboratory classes to BSc students in Instrumentation and Measurement and Electronic Circuits courses. It mainly involves topics such as circuit analysis, signal processing, sensors and transducers, data acquisition systems, and instrumentation design and calibration.

Scientific Research Initiation Scholarship

Oct 2022 – Feb 2023

Institute for Systems and Robotics

Study and develop strategies for locating mine-like objects using various types of sensors, and demonstrate their effectiveness using MATLAB simulations.

Education

MSc in Electrical and Computer Engineering

Sep 2022 – Now

Instituto Superior Técnico, University of Lisbon

Major in Control, Robotics and Artificial Intelligence and Minor in Space Sciences and Technologies.

First Year Student Representative and Student mentor with NAPE Mentoring Programme in 2022/23.

Relevant Courses: Machine Learning (19/20) and Robotics (18/20).

Current Grade: 18.0/20

MSc in Computer Science, Systems and Control and Electrical Engineering

Sep 2023 – Feb 2024

Delft University of Technology

Erasmus+ exchange Programme.

BSc in Electrical and Computer Engineering

Sep 2019 – Jul 2022

Instituto Superior Técnico, University of Lisbon

Student mentor with NAPE Mentoring Programme, Academic Merit Diploma in 2019/20 and 2020/21 and Academic Excellence Diploma in 2021/22. First technical report about the *Application of FastSLAM in TurtleBot3*.

Relevant Courses: Autonomous Systems (18/20), Circuit Analysis (20/20), Electronic Circuits or Electronics I (19/20), Probabilistic and Statistics (17/20), Programming (18/20) and Signals and Systems (18/20). Grade: 17.2/20

High School Diploma – Sciences and Technologies

Sep 2016 – Jul 2019

Escola Secundária de Azambuja

Music, Robotics and Sports clubs. President of the General Assembly of Students and Student's Representative and Counselor on the School's General Council. Also involved in the making of the *Infarct-Saver* project.

Relevant courses: Maths A (19/20) – top class in the National Exam and Physics and Chemistry A (18/20). Grade: 161.5/200

Get to know me



Volunteering

Parish Volunteer	Jul 2022 – Sep 2023
World Youth Day Lisbon 2023	
Missionary and Group Leader	Feb 2020 – Mar 2024
<i>Missão País Project</i>	
Scout	Jan 2015 – Now
World Organization of the Scout Movement	

Certifications

Participation Certificate – Ciencia en Acción 2019	Oct 2019
Fundación Española para la Ciencia y la Tecnología	
Participation Certificate – FCT NOVA Challenge 2019	Jun 2019
NOVA School of Science and Technology	
Cambridge First Certificate	Jan 2019
Cambridge Assessment English	

Honors and Awards

Merit Scholarship – 2021/2022	May 2023
Câmara Municipal de Azambuja	
Merit Scholarship – 2020/2021	May 2022
Câmara Municipal de Azambuja	
Honorable Mention Award	Oct 2019
Ciencia en Acción 2019	

For a more detailed *Curriculum Vitae* please visit me on [LinkedIn](#)