

Diogo Paulo

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<https://diogocpaulo.github.io/robotics-portfolio/>

Summary

Robotics and AI engineer with a focus on visual localization, perception and deep learning. MSc candidate at KTH collaborating with Ericsson Research on AI-driven 3D scene representations for high-precision pose estimation.

Education

KTH Royal Institute of Technology <i>MSc in Systems, Control and Robotics.</i> GPA 4.88/5 (A)	Stockholm, Sweden June 2026
Relevant Coursework: Machine Learning, Image Analysis and Computer Vision, DL in Data Science. Projects: Mobile robot navigation integrating LiDAR localization and vision-based perception.	

Instituto Superior Técnico <i>BSc in Aerospace Engineering.</i> GPA 18/20 (A)	Lisbon, Portugal Sep 2021 – June 2024
Relevant Coursework: Introduction to Control, Digital Systems, Computational Mathematics. Projects: VTOL design for medical logistics; helicopter modeling (SolidWorks); atmospheric simulation (MATLAB).	

Experience

Ericsson Research Master's Thesis Intern	Stockholm, Sweden Jan 2026 – Present
• Investigating AI-driven 3D scene models as high-accuracy digital maps to enable precise camera positioning. • Developing a decoupled framework using Python and PyTorch to estimate poses by matching query images against latent scene representations (using RayZer model).	
KTH Royal Institute of Technology Teaching & Laboratory Assistant	Stockholm, Sweden Aug 2025 – Present
• Computer Vision: Assessed labs on Fourier domain filtering, edge detection and 3D reconstruction. • Machine Learning: Mentored students in Python-based labs on Decision Trees, SVMs and Bayes Classifiers. • Automatic Control: Supervised experiments involving system identification and PID/lead-lag controller design.	
Jerónimo Martins IT Summer Intern	Lisbon, Portugal Jun 2023 – Aug 2023
• Gained exposure to SAP systems and corporate IT infrastructure workflows.	

Leadership & Activities

AeroTéc - Aerospace Student Organization Multiple Roles	Lisbon, Portugal Sep 2022 – Aug 2024
• Electronics (RED): Designed and fabricated PCBs for award-winning rocket missions in ESA's EuRoC competition. • Web (WebDev): Maintained a cloud platform using databases like MongoDB to support 700+ students. • Marketing (Aerospace Week): Produced video content to promote this event featuring NASA/ESA speakers.	
EY Student Ambassador	Lisbon, Portugal Sep 2022 – Jun 2024
• Coordinated communication and event management within a 36-member ambassador team.	

Skills & Interests

Technical: Python (PyTorch, TensorFlow, NumPy), MATLAB/Simulink, C/C++, R, RISC V (Assembly), ROS/ROS2, CUDA Acceleration, Docker, Git, LaTeX, KiCad, LTSpice, SolidWorks, JavaScript/HTML/CSS.
Language: Portuguese (Native), English (C1-IELTS).
Certifications: CS50 AI (Harvard, 2025), Automatic Control (TU Delft, 2024), CS50 Computer Science (Harvard, 2020).
Interests: Piano (Grade V), Volunteering (Refood, Web Summit), 3rd in National Biology Olympiad.