

# Diogo Paulo

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## 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

<b>KTH Royal Institute of Technology</b> <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.	
<b>Instituto Superior Técnico</b> <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

<b>Ericsson Research</b>	Stockholm, Sweden
<b>Master's Thesis Intern</b>	Jan 2026 – Present
<ul style="list-style-type: none"><li>Investigating AI-driven 3D scene models as high-accuracy digital maps to enable precise camera positioning.</li><li>Developing a decoupled framework using Python and PyTorch to estimate poses by matching query images against latent scene representations (using RayZer model).</li></ul>	
<b>KTH Royal Institute of Technology</b>	Stockholm, Sweden
<b>Teaching &amp; Laboratory Assistant</b>	Aug 2025 – Present
<ul style="list-style-type: none"><li><b>Computer Vision:</b> Assessed labs on Fourier domain filtering, edge detection and 3D reconstruction.</li><li><b>Machine Learning:</b> Mentored students in Python-based labs on Decision Trees, SVMs and Bayes Classifiers.</li><li><b>Automatic Control:</b> Supervised experiments involving system identification and PID/lead-lag controller design.</li></ul>	
<b>Jerónimo Martins</b>	Lisbon, Portugal
<b>IT Summer Intern</b>	Jun 2023 – Aug 2023
<ul style="list-style-type: none"><li>Gained exposure to SAP systems and corporate IT infrastructure workflows.</li></ul>	

## Leadership & Activities

<b>AeroTéc - Aerospace Student Organization</b>	Lisbon, Portugal
<b>Multiple Roles</b>	Sep 2022 – Aug 2024
<ul style="list-style-type: none"><li><b>Electronics (RED):</b> Designed and fabricated PCBs for award-winning rocket missions in ESA's EuRoC competition.</li><li><b>Web (WebDev):</b> Maintained a cloud platform using databases like MongoDB to support 700+ students.</li><li><b>Marketing (Aerospace Week):</b> Produced video content to promote this event featuring NASA/ESA speakers.</li></ul>	
<b>EY</b>	Lisbon, Portugal
<b>Student Ambassador</b>	Sep 2022 – Jun 2024
<ul style="list-style-type: none"><li>Coordinated communication and event management within a 36-member ambassador team.</li></ul>	

## 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.