



DAVID LOPES

AI Engineer



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Coimbra, Portugal



LinkedIn



GitHub

LANGUAGES

- Portuguese (Native)
- English (B2)

HARD SKILLS

- Python
- Machine Learning
- Deep Learning
- Computer Vision
- OpenCV
- PyTorch
- TensorFlow
- LLM Applications
- RAG
- SQL
- Docker
- Git
- Linux

SOFT SKILLS

- Problem solving
- Teamwork
- Adaptability
- Critical thinking
- Proactivity
- Communication

CERTIFICATIONS

- Doosan Robotics
 - Operation and Programming

ABOUT ME

AI Engineer experienced in computer vision, deep learning, and distributed AI systems, focused on building scalable, real-time solutions for healthcare and industrial automation.

EDUCATION

- | | |
|------|---|
| 2022 | Master's in Electrical and Automation Engineering
ISEC I Polytechnic University of Coimbra |
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| 2025 | Grade: 16/20 Thesis: AGV Fleet Supervision and Monitoring Software |
| 2019 | Bachelor's in Electrical Engineering
ISEC I Polytechnic University of Coimbra |
| - | |
| 2022 | Grade: 13/20 Project: Deep Learning-Based Autonomous Driving Model |

WORK EXPERIENCE

- | | |
|---------|---|
| 2025 | SafeCaring AI Engineer
AI-Powered Healthcare Monitoring System
Tools & Technologies: Python · Computer Vision · Machine Learning · Deep Learning · Activity, Object & Human Pose Recognition · Model Training & Fine-Tuning · Distributed Systems · LLM Applications
Description: Designed and developed scalable AI solutions for healthcare applications, focusing on computer vision, activity, object, and human pose recognition. Built, trained, and optimized machine learning models while contributing to a modular and distributed AI architecture that integrates multiple services through automated orchestration and inter-service communication, enabling intelligent real-time monitoring and clinical workflow automation. |
| - | |
| Present | |
| 2023 | Stellantis Researcher
Automation of the Nut-Tightening Process
Tools & Technologies: Computer Vision & Collaborative Robots
Description: Developed a collaborative robotic system for automatic nut tightening, integrating 3D vision cameras to correct positioning during vehicle assembly. Paper · Paper
Multi-Brand AGV Fleet Management Platform
Tools & Technologies: Web Development & Multi-Robot Integration
Description: Developed a web platform for real-time supervision and monitoring of mobile robot fleets, integrating equipment from different brands into a single interface. Paper |
| - | |
| 2025 | |

PERSONAL PROJECTS

- | | |
|---------|---|
| 2025 | AI Financial Research Platform
Tools & Technologies: LLMs · RAG · Vector Databases · APIs · Backend & Frontend Development · Structured Data
Description: Building a full-stack AI platform that analyzes financial content from YouTube channels and structured financial data, using RAG and a vector database to build an enriched knowledge base for LLM-powered financial analysis and research. |
| - | |
| Present | |