António Morais

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About me

MSc student in Electrical and Computer Engineering at Instituto Superior Técnico, with a strong interest in Artificial Intelligence, Data Science and Robotics. Experienced in Python and C, as well as with ROS and Git.

Experience

AI Engineering Intern   *Lisbon, Portugal*
iCapital   *Jul 2024 – Aug 2024*

- Developed an LLM-powered multi-agent pipeline using Python and the AutoGen library to automate generation of fund report sections.
- Reduced report section creation time from 8 hours to under 10 minutes (80x) by automating generation of text, plots, and tables in Word.
- Applied OpenAI models, BGE embeddings, and similarity search for fact-checking generated content.
- Collaborated with a team of 3 interns and U.S.-based coworkers as part of iCapital's 2024 internship program.

Team Member and Leader of the Speakers Team   *Lisbon, Portugal*
Journeys of Electrical and Computer Engineering (JEEC25)   *May 2023 – May 2025*

- Led a 7-member team responsible for sourcing and securing speakers aligned with the event's theme and objectives.
- Managed outreach, session planning, and speaker coordination, including invitations, meetings, and travel logistics.
- Collaborated with event coordinators on inter-team planning, marketing, budgeting, and scheduling.
- Researched and evaluated high-profile speakers for keynotes and panel discussions; curated innovative session ideas with the team.

Projects

Member of the SocRob@Home Team
Institute for Systems and Robotics @IST

- Currently enhancing the TIAGo robot's conversational abilities by integrating LLMs to replace hardcoded speech with natural, fluid dialogue in half-duplex interactions.

Indoor 3D-Sensor Based Navigation   *Project Website ↗*
Institute for Systems and Robotics @IST

- Contributed to a team of 6 bachelor's students within SocRob@Home (13 total members) focused on advancing robot-human interaction research.
- Tested and evaluated SLAM algorithms to enable accurate localization and mapping using 3D sensor data.
- Enabled obstacle avoidance for objects undetectable by 2D sensors — ranging from 9cm to 20cm in height and suspended objects.
- Supported the team's performance at RoboCup 2024, contributing to a 3rd place finish at the world's leading robotics and AI competition.

Education

University of Applied Sciences Technikum Wien   *Vienna, Austria*
Erasmus - MSc in Electrical and Computer Engineering   *Feb 2025 – Jul 2025*

- **Grade:** 19/20.
- **Coursework:** Artificial Intelligence (19/20), Data Analysis (19/20), Technology Management (19/20).

Instituto Superior Técnico   *Lisbon, Portugal*
MSc in Electrical and Computer Engineering   *Sept 2024 – Present*

- **Grade:** 17/20.
- **Coursework:** Natural Language Processing (17/20), Machine Learning (16/20), Deep Learning (16/20).

BSc in Electrical and Computer Engineering   *Sept 2021 – Jul 2024*

- ○ **Grade:** 16/20.
- ○ **Coursework:** Autonomous Systems (19/20), Control (18/20), Probabilities and Statistics (18/20).

Expertise

Programming Languages: Python, C, MATLAB, R, RISC-V, Java.

Technologies: Git, GitHub, GitLab, Docker, ROS, Windows OS, Linux OS, macOS.

Languages

Portuguese: Native. **English:** C1. **German:** A1.

Awards

- ○ Axians Scholarship 2023/2024 and 2024/2025 recipient.
- ○ Academic merit 2022/2023 and 2023/2024 in Electrical and Computer Engineering.

Hobbies and Interests

- ○ Volunteering: JEEC, Web Summit and Student's Mentor @NAPE.
- ○ Play sports (mainly football), go to the gym and skate..
- ○ Rubik's cube.
- ○ Learning and reading about Norse mythology.
- ○ Watch shows or movies.