

FRANCISCO CARAVANA

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PROFILE

Third-year BSc student in Electrical and Computer Engineering at Instituto Superior Técnico, with strong foundations in programming, computer architecture, digital systems, control, physics, and mathematics. Experienced in C and Python, with international academic exposure through the ATHENS Programme at Czech Technical University in Prague. Former high-level competitive judo athlete, combining discipline, resilience, teamwork, and performance under pressure with a strong engineering mindset.

EDUCATION

Instituto Superior Técnico — BSc in Electrical and Computer Engineering September 2023 – Present

Lisbon, Portugal

- Current GPA: 13.1 / 20

Relevant coursework: Computer Architecture, Digital Systems, Concurrent Programming, Linear Algebra, Control.

Academic Projects:

- **Concurrent Programming (C):** Development of an overlay network in C, implementing TCP/UDP communication and a distributed routing protocol without forwarding loops. Designed and implemented node-to-node communication, message routing, dynamic link management, and socket multiplexing.
- **Projeto de Programação Concorrente (C):** Development of a concurrent application in C using multiple threads for performance optimization and parallel task execution. Implementation of synchronization mechanisms and memory management.
- **Final Course Project:** Designing and developing a smart emergency-response platform for urban environments using Python, Django, HTML, LoRa communication, RFID systems, and STM microcontrollers. The project integrates software and embedded systems to enable real-time data transmission, monitoring, and coordination during emergency scenarios.

Escola Secundária Rainha Dona Leonor — Secondary Education

September 2011 – June 2023

Lisbon, Portugal

- Final GPA: 14.1 / 20

EXPERIENCE

Logistics Team Member — JEEC, Electrical and Computer Engineering Job Fair

Instituto Superior Técnico, Lisbon, Portugal

- Contributing to the planning and execution of a large-scale engineering job fair, applying organizational skills and coordination with multiple stakeholders.
- Supporting logistics operations, materials coordination, and on-site activities, requiring time management, attention to detail, and teamwork.

Judo Instructor — Colégio Sagrado Coração de Maria

Lisbon, Portugal

- Delivering structured judo lessons to pre-primary students, applying planning, clear communication, and safety awareness while fostering coordination, discipline, and teamwork.

INTERNATIONAL ACADEMIC EXPERIENCE

ATHENS Programme — 3D Measuring Methods in Transportation

March 2025

Czech Technical University in Prague

- Completed an international intensive course focused on 3D measurement techniques and transportation applications; final grade: A, 2 ECTS credits.
- Topics included data acquisition, measurement methods, transport-related applications, and data analysis.

TECHNICAL SKILLS

- Programming: C, Python
- Academic areas: computer architecture, digital systems, concurrent programming, control systems, data acquisition and analysis.

LANGUAGES

- Portuguese: native.
- English: fluent.

SPORTS AND COMPETITIVE ACHIEVEMENTS

- Federated judo athlete competing at national level (-66 kg); bronze medalist at the Portuguese National University and Junior Championships (2024), 5th place at the Senior National Championship (2023), and member of Sporting CP's Junior National Champion Team (2022).
- Active practitioner of American Football.