JOSÉ DUARTE LOPES

Lisbon - Portugal

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EDUCATION

Instituto Superior Técnico, Lisboa *Started September 2023*
Master Degree in Electrical and Computer Engineering

Danmarks Tekniske Universitet, Copenhagen *Spring 2024*
Erasmus Student for 2024 Spring Semester

Instituto Superior Técnico, Lisboa *September 2020 - July 2023*
Bologna Degree in Physics Engineering
Merit Board Student
Integrated Project in Engineering Physics - Automatic Control of a Two Axis Parabolic Mirror for a Solar Light Concentrator
Final Grade: 17 (0-20)

WORK EXPERIENCE

e-lab: Remote Laboratories October 2023 - Present
Pedagogic Innovation Projects Grant *Instituto Superior Técnico, Lisbon, Portugal*

· Developed quizzes and deployed remote controlled experiments to the Framework for Remote Experiments in Education (FREE).
· Established communication with partner universities to maintain worldwide network of remote experiments.

ACTIVITIES

HackerSchool May 2022 - Present
Board Member - External Relations Manager *Instituto Superior Técnico, Lisbon, Portugal*

· Initiated and mantained contact with external entities regarding potential partnerships and sponsorships.
· HS-MIDI Project: upgrading an old keyboard to feature MIDI capabilities using a Micro-controller; wrote all the code and did the first complete wiring, which made it work as intended.

Athens Course - Finite Element Modeling of Vibrating Elastic Structures March 2023
Participant *TU Delft, Delft, Netherlands*

· Attended one week intensive course at TU Delft, alongside international students, about Finite Element Modeling.
· Developed a Finite Element Model Engine from scratch, in Julia, capable of performing simulations on simple geometry.

Propagation of Error Calculator (errorpropagation.com) April 2023
Co-Creator & Lead Developer

· Co-Created and Developed website that offers automatic calculation of the error propagation, for any expression, helping hundreds of engineering students with their lab courses.
· Won second place at Jornadas de Engenharia Física (JEF) Awards for best project and presentation.

Best Course - The Engine so Advanced it's Unreal   August 2022 - September 2022
Participant   *University of Novi Sad, Novi Sad, Serbia*

· Attended course organized by BEST Novi Sad, at University of Novi Sad, alongside multidisciplinary group of international students, about Unreal Engine; built a room for an Architecture Demo and a more complex game.

AfterSchool - Programming   May 2022 - June 2022
Instructor

· Gave weekly classes and continuous support about the Python programming language to a group of middle school students new to programming.

WebSummit Lisbon   November 2021 / November 2022
Volunteer   *FIL, Lisbon, Portugal*

· Two time volunteer at the WebSummit Lisbon Event

INTERESTS

Additive Manufacturing Processes
Electric Bass

TECHNICAL STRENGTHS

Languages	Portuguese, English
Computer Languages	C, C++, Python, JavaScript, Julia, R, Rust, Java
Tools	Vim, Git, CAD, Pytorch, TensorFlow, scikit-learn