

# Tomás Lopes

CS STUDENT · DEVELOPER

Sintra, Lisbon

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## Summary

Computer Science Student with a passion for technology and a focus on iOS development. Highly flexible, autonomous and eager to learn, with strong problem-solving skills and attention to detail.

## Work Experience

### Instituto Superior Técnico

Oeiras, Portugal

RESEARCH ASSISTANT

Feb. 2022 - Present

- Design, coordinate and execute STEM-based summer camps and workshops for ages 9-16.
- Translate complex engineering concepts into hands-on learning activities, merging education with entertainment to inspire creativity.
- Teach in diverse areas including C, C++, Python, web development, 3D modeling, elementary AI principles, PCB soldering and Arduino.
- Led specific hands-on projects such as crafting a dog robot, developing a robotic arm and building a smart city model.
- Represent and promote IST at various fairs.

### Técnico Solar Boat

Lisbon, Portugal

ELECTRICAL SYSTEM DEPARTMENT

Nov. 2021 - Apr. 2023

- Developed a Python and PyTorch-based neural network for object detection in the prototype boat, São Pedro 01, targeting buoys as primary markers, and integrated it with ROS via OpenCV.
- Curated an image database, capturing and annotating images to enhance object detection accuracy.
- Assisted throughout the carbon fibre boat's construction, from mold prep to lamination.

### Escola Superior de Saúde da Cruz Vermelha Portuguesa

Lisbon, Portugal

WEB DEVELOPER / IT SUPPORT

Nov. 2019 - Jan 2020

- Developed the Erasmus+ Program website using WordPress and a custom theme.
- Ensured the university's IT infrastructure functioned optimally and mapped all device networks.
- Implemented a ticket system, enhancing admission office efficiency.
- Aided in backups after a cyber attack, supporting data recovery and security.
- Received a recommendation from the Chairman of the Board and a top grade (20/20). (Attached at the end)

## Education

### Instituto Superior Técnico

Lisbon, Portugal

MASTER'S DEGREE IN COMPUTER SCIENCE AND ENGINEERING

### Instituto Superior Técnico

Lisbon, Portugal

BACHELOR'S DEGREE IN COMPUTER SCIENCE AND ENGINEERING

### EPAD - Escola Profissional de Artes Tecnologias e Desporto

Lisbon, Portugal

HIGH SCHOOL - TECHNICAL COURSE IN PROGRAMMING AND MANAGEMENT OF COMPUTER SYSTEMS

## Volunteering

### NAPE - IST

Oeiras, Portugal

STUDENT MENTOR

Sep. 2022 - Present

### Universidade de Lisboa

Oeiras, Portugal

VERÃO NA ULISBOA

'22, '23, '24 Editions