

## EDUCATION (\* EXPECTED)

2023 - 2026\*

### **Instituto Superior Técnico, University of Lisbon, Portugal**

Master of Science in Engineering Physics (grade 17/20\*)

Final Project: *Quantitative and Qualitative Elemental Analysis via X-Ray Fluorescence for Materials' Characterization* (grade 18/20)

Supervisors: Professor Luís Peralta (LIP/FCUL, University of Lisbon)

Professor Patrícia Gonçalves (LIP/IST, University of Lisbon)

Dissertation: TBD

Extracurriculars: Student Member of the Engineers' Order (2023 - present),  
founding member of Nuclear Vision Portugal (2023 - present)

Leadership: Student Representative for the Biophysics course (2024)

2018-2026\*

### **Instituto Superior Técnico, University of Lisbon, Portugal**

Bachelor of Science in Engineering Physics (grade 13/20\*)

Final Project: *A non-linear mathematical model of hydrogen peroxide diffusion and clearance in brain tissue* (grade 17/20)

Supervisors: Professor Rui Travasso (CFisUC, University of Coimbra)

Professor Armindo Salvador (CNC, University of Coimbra)

Professor Ilídio Lopes (CENTRA/IST, University of Lisbon)

Extracurriculars: Global Management Challenge (2021), Mentorship Program (2019),  
Physics Students Nucleus - NFIST (2019)

2017-2018

### **Hofstra University, Hempstead, NY, USA**

*Rabinowitz Honors College, Hofstra College of Liberal Arts*

*Fred DeMatteis School of Engineering and Applied Science*

Bachelor of Science in Applied Physics (First Year) (grade 3.56/4.0)

Minors in Engineering, Astronomy and Mathematics

2014-2017

### **Miraflores High School, Portugal**

High School Diploma, Sciences and Technologies (grade 17/20)

Senior Physics Project: *Matter and anti-matter: a preliminary review* (grade 20/20)

Extracurriculars: Regional Physics Olympics (2016), District National Reading  
Competition (2016, 2015), Geology Olympics (2016), Summer at University  
(University of Lisbon's Law School, 2016).

Leadership: Class Vice-Delegate (10th grade, 2014/2015), Class Delegate (11th and  
12th grade, 2015/2016 and 2016/2017).

## EXPERIENCE

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### **LIP - Laboratory of Instrumentation and Experimental Particle Physics, Lisbon, Portugal**

**06/2025 - 10/2025**     Research Fellow

Developing work within the LUMIDOS project [2023.15783.PEX], on material characterization and elemental analysis via X-ray fluorescence.

**04/2025 - 06/2025**     Research Intern

Experimental work on Ionizing Radiation.

**05/2021 - 06/2021**     Undergraduate Intern

Short internship, testing MOSFETs' behaviour when exposed to radiation.  
Work framed within a contract with the European Space Agency.

### **Instituto Superior Técnico, University of Lisbon, Lisbon, Portugal**

**09/2025**     Participant, Mini-Course “Hawking radiation in an acoustic black hole”

Part of the IST-Physics Visitor Programme

Invited Lecturer: Professor Jeff Steinhauer (Technion, Israel)

Final Course Grade: 18/20

**04/2024 - 06/2024**     Graduate Student, Micro and Nanofabrication Techniques — INESC - MN

Fabrication of Biochips — thirty hours of cleanroom experience.

Supervisor: Doctor Susana Freitas

**02/2024 - 03/2024**     Research Intern — GoLP/IPFN

Optics project.

Supervisor: Doctor João Mendanha Dias.

Withdrew due to another research opportunity, that unfortunately fell through.

**09/2023**     Participant, 11th School of Astrophysics and Gravitation — CENTRA

This school takes place every two years and its main objective is to encourage young talents to develop their knowledge in the areas of Astrophysics and Gravitation. This summer school is mainly aimed at university level students of Physics, Mathematics, and Engineering.

### **PharmaLaranjinha, Mafra, Portugal**

**08/2021 - 06/2024**     Intern

My main tasks consisted of shadowing the responsible for the pharmacy/supplement store. I was able to absorb an incredible amount of knowledge about over the counter medication and natural supplementation, as well as the national regulations regarding them. I was also expected to help with customer service, to clean and organize the pharmacy according to FIFO/FEFO principles and regularly check for expiration dates. I also collaborated in the process of changing locations, following a rebranding and expansion.

### **Joan and Donald E. Axinn Library, Dean's Office, Hofstra University, Hempstead, NY, USA**

**02/2018 - 05/2018**     Student Aide

Responsible for various administrative tasks, such as the handling of confidential documents and its transportation and safe delivery between departments.  
Developed and fostered a solid and healthy work relationship and environment with colleagues and employers.

## PUBLICATIONS

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**Late 2025/2026**     *Salvador, A., Travasso, R. et al. A non-linear mathematical model of hydrogen peroxide diffusion and clearance in brain tissue.* Manuscript in preparation.

## CODING AND OTHER SKILLS

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**Programming:**     C, C++, Python, R (RStudio), bash, LaTeX (Overleaf, Texifier), HTML, CSS, MatLab, Pascal, ROOT, GEANT4, FORTRAN.

**Languages:**     Portuguese (Native), English (Native), Spanish (Elementary), French (Elementary), Russian (learning, Beginner)

**Software:**     Microsoft Office Suite (Word, Excel, PowerPoint), MacOS, ProCreate, AutoCAD, Visual Studio Code, Figma, Git (and GitHub, beginner), ImageJ.

**Online Courses:**     MOOC Técnico

**2023**     Circular Economy

**2022**     Machine Learning

**2021**     Epigenetics

Codecademy

**2022**     Introduction to UI/UX design

**2022**     Learn Bash Scripting

**Test Scores:**     TOEFL iBT: 110/120 (2016)

SAT: 1320/1600 (2016)

## AWARDS, GRANTS AND HONOURS

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**2025**     **“Novel LUMInescent passive DOSimeters”**  
Research Student Fellowship 2023.15783.PEX. (€6488.78)

**2024**     **Guinness World Records**  
Largest Programming Class in the World

**2018**     **Hofstra University’s Dean’s List**  
Students with a GPA of at least 3.5

**2017**     **Hofstra University’s Dean’s List**  
Students with a GPA of at least 3.5

**2017**     **Hofstra University Presidential Scholarship**  
Undergraduate Studies Scholarship (\$24,000)

**2017**     **Education USA/LADF Opportunity Funds Grant**  
Application/Travel Grant (\$3,080.50)

**2016**     **Geology Olympics’ Merit Diploma**  
First Place in School Qualifiers

**2015**     **Rotary Club Best Companion Student Award**  
Voted by 10th grade classmates

## OUTREACH, EXTRACURRICULARS AND VOLUNTARY ENGAGEMENT

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<b>08/2023 - Present</b>	<b>Nuclear Vision Portugal</b> Founding member. Scientific Team contributor.
<b>2020, 2021</b>	<b>Comissão de Organização da Queima das Fitas da Academia de Lisboa</b> Gala Dinner Team member. Was involved in contacting venues, discussing budgets, negotiating prices and planning the overall event. The events were affected by the global pandemic.
<b>2019</b>	<b>NFIST (Núcleo de Física do Instituto Superior Técnico)</b> ReCreativa Team member
<b>2018</b>	<b>Science Alliance Member, New York Academy of Sciences</b> Sponsored by the Hofstra Honors College, to be a member of the NYAS and engage in multiple activities, among fellow students who were also interested in the opportunity.
<b>2016-2017</b>	<b>Competitive College Club, Fulbright Commission Lisbon</b> Program to help highly motivated students submit competitive applications to very selective colleges and universities in the US. The 2016 cohort included 14 students from the entire country.
<b>2016</b>	<b>Student, Summer at University of Lisbon</b> Faculdade de Direito (Law School) Junior Law Program
<b>2013</b>	<b>Student, Summer at Technical University of Lisbon</b> Instituto Superior Técnico Junior Engineering Program
<b>2012 - 2016</b>	<b>Scout, Corpo Nacional de Escutas (CNE)</b> Group 908 Carnaxide, Portugal Volunteering efforts at Banco Alimentar Contra a Fome. Group self-funded trip to Griebal Scout Camp (Spain, 2015) and Kandersteg International Scout Camp (Switzerland, 2013)
<b>2007 - 2015</b>	<b>Student, Escola de Música Nossa Senhora do Cabo, Linda-a-Velha, Portugal</b> Artistic Specialised Course, 6th degree, Violin Choir, Orchestra, Musical Theory, Composition Analysis and Techniques