

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

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

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

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, LTSpice.

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

2025 **LUMIDOS - 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

08/2023 - Present	Nuclear Vision Portugal Founding member. Scientific Team contributor.
2020, 2021	Comissão de Organização da Queima das Fitas da Academia de Lisboa 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.
2019	NFIST (Núcleo de Física do Instituto Superior Técnico) ReCreativa Team member
2018	Science Alliance Member, New York Academy of Sciences 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.
2016-2017	Competitive College Club, Fulbright Commission Lisbon 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.
2016	Program “Viver Astronomia”, Instituto de Astrofísica e Ciências do Espaço Interested students/researchers meet once a month, where they got the opportunity to attend theoretical and practical training, and in exchange serve as guides to the Observatory. Due to maintenance at the Lisbon Observatory, sessions were held at the Gulbenkian Planetarium.
2016	Student, Summer at University of Lisbon Faculdade de Direito (Law School) Junior Law Program
2013	Student, Summer at Technical University of Lisbon Instituto Superior Técnico Junior Engineering Program
2012 - 2016	Scout, Group 908 Carnaxide, Corpo Nacional de Escutas (CNE) 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)
2007 - 2015	Student, Escola de Música Nossa Senhora do Cabo, Linda-a-Velha, Portugal Artistic Specialised Course, 6th degree, Violin Choir, Orchestra, Musical Theory, Composition Analysis and Techniques