Raul de Assis Santos

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Lattes, LinkedIn and GitHub

Education

Instituto Tecnológico de Aeronáutica   São José dos Campos, Brasil
M. Sc. in Nuclear Physics   2025 – 2027 (expected)
- Master's simultaneous with B. Sc.

Instituto Superior Tecnico, Universidade de Lisboa   Lisbon, Portugal
M. Sc. in Engineering Physics   2024 – 2025
- ERASMUS Student (GPA: 15/20)

Escola de Engenharia de Lorena, Universidade de São Paulo   Lorena, Brasil
B. Sc. in Engineering Physics   2022 – 2026 (expected)
- GPA: 7.9/10.0

Experience and Projects

Undergraduate Researcher (CNPq schoolarship)   2025 – Present
Study of Gravitational Wave phenomena and Modified Gravity.

Tutor in Quantum Mechanics   2025
Tutor of the Quantum Mechanics course (undergraduate level).

Scientific initiation in Gravitation (Volunteer)   2023 – 2025
After learning the basis of GR, my focus was studying fixed Lifshitz points at a specific Black Hole using the Variational Principle. I could check that, at those conditions, GR results could be recovered.

Hackathon NASA Space Apps   2023 and 2024
In 2023 we worked on a project about Magnetic Reconnection. At 2024, with more experience, we developed a project on predicting Planetary Seismology using Machine Learning. This was the project that made us won the "Global Nominee" award.

Awards and Honors

- **Academic Scholarship: Academic Merit**
  Universidade de São Paulo (USP)   2024
- **2024 Global Nominee**
  NASA Global Space Apps Challenge   2024
- **Gold Medal at Brazilian Astronomy and Astronautics Olympiad**
  Agência Espacial Brasileira (AEB)   2020

Skills

Languages: Portuguese, English.
Programming: Python, Maple, Mathematica.