

José Eduardo
ALVES PEREIRA FILHO
27 years



PROFILE

Electrical engineer passionate about applying **advanced mathematics** and **data-driven models** to real-world challenges. Highly motivated to tackle the **financial, technical aspects and social aspects of energy sector** and support the **energy transition**. Strong initiative, analytical skills, and curiosity complement my technical expertise.

CONTACT

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LANGUAGES

- **Portuguese – C2**
- **French – C1**
- **English – C1**
- **Chinese – A1**

SKILLS

- **Programming:** Python, Matlab, SQL, C/C++
- **Tools:** PowerBI, Tableau, Autocad, SolidWorks, PSpice, Simulink
- **Office:** Microsoft Excel, Word, PowerPoint
- **Methods:** Git, JIRA
- **Driving licence B**

HOBBIES

Karate (black belt – founder of UNICAMP's club), Chess, Boxing, Volleyball, Video games, Cooking;

PROFESSIONAL EXPERIENCE

ENERGY STUDIES ENGINEER - EDF

09/2024–09/2025

- ◇ Conducting **technical feasibility studies** for industrial electrification projects at a regional scale.
- ◇ Design of **energy consumption modelling tools** for electric vehicles for further **cost optimisation**, ensuring a **positive NPV** for the transition from thermal to electric fleets.
- ◇ Assessment of **price volatility impacts** on **energy poverty** and district heating development, with proposals for **pricing model improvements**.

RESEARCHER IN CYBERSECURITY - INSA Lyon

03/2024 – 09/2024

- ◇ Integration of AI (PINNs) into **cyberattack threat detection**.
- ◇ Development of a data architecture and **proposed evaluation metrics**.

GAP YEAR

03/2023–03/2024

- ◇ Travelled across several regions of the world and Brazil, gaining cultural and personal growth.

DATA ANALYST - Eldorado/Motorola

12/2021–03/2023

- ◇ Designed and deployed a new AI model for **defect detection on 4G/5G smartphone networks**.
- ◇ Developed new **predictive features** of consumer preferences using SQL, Big Feed and Google Data Studio.

AI RESEARCHER - Fiberwork

06/2021–12/2021

- ◇ Worked with the AI team to develop **monitoring algorithms using fibre-optic (DAS) signals**.

HVDC NETWORK RESEARCHER - SuperGrid

09/2020–02/2021

- ◇ Developed a **HVDC grid monitoring tool** based on automated planning and control theory.

EDUCATION

MINES PARIS - PSL

09/2024–09/2025

- ◇ Specialized Master in **Optimization of Energy Systems**, organized by the **CMA Mines Paris – PSL**, in partnership with **EDHEC Business School** and **CREDEN** (University of Montpellier).
- ◇ Program focused on **financial modeling, applied statistics, stochastic optimization**, and **energy economics**, with courses delivered by leading academics and professionals.
- ◇ Close collaboration with industry through an **apprenticeship at EDF**, developing quantitative tools for energy cost optimization, fleet electrification, and techno-economic project evaluation.

ÉCOLE CENTRALE DE NANTES & UNICAMP

2016–2023

- ◇ Double degree in Electrical and General Engineering (France – Brazil).
- ◇ Centrale Nantes: foundation in **general engineering**, specialization in **data analysis, signal and image processing**.
- ◇ UNICAMP: Electrical engineering at one of the top universities in Latin America. Awarded the **CREA-SP Prize 2022** as the **best electrical engineering student** among top Brazilian universities.