





Matheus Duarte de Menezes

Engineer with double degree in general engineering from École Centrale Lille (FR) and specialist in electrical engineering from Polytechnic School of the Federal University of Rio de Janeiro (BR).

Personal Information

 Portuguese and Brazilian citizenships

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Overview

Electrical Engineer specialized in Power Systems with solid experience in software development using Python, data science, and automation solutions for the power sector. Seeking opportunities to apply and develop innovative technologies, such as machine learning and artificial intelligence, in the sector's digital transformation.

Languages

- **Portuguese:** native language;
- **French:** advanced (DELF: B2);
- **English:** advanced (TOEIC: C1);
- **Spanish:** basic.

Technologies

- **Microsoft Office:** Word, PowerPoint, Excel, VBA, PowerBI, M e DAX.
- **Softwares:** SDDP, NetPlan, OptGen, PSS/E, PowerFactory, Organon, Anarede and Nodal.
- **Programming:** Python and C++.
- **Libraries:** NumPy, Pandas, Matplotlib, Plotly, Streamlit, Scikit-learn, PyTorch, LangChain, LangGraph, CrewAI, Pytest and FastAPI.

Professional Experience

Software Engineer

PSR - Power Systems Research | aug. 2023 - today

Software development for automation and data analysis of electrical system operation and planning models. **Programming:** Python and C++

- Experience with various Python libraries (NumPy, Pandas, Streamlit);
- Data Science and Machine Learning applications (Scikit-learn, PyTorch);
- Development of AI-integrated automations (LangChain, LangGraph);
- Support for a high-performance Python API (PSR Factory) with C++.

Electrical Power Grid Studies Intern

PSR - Power Systems Research | may 2022 - aug. 2023

Studies on connecting new users to the electrical grid, projections of system usage tariffs, curtailment from renewable power plants, operational simulations of electrical systems and impacts of integrating distributed energy resources.

Softwares: SDDP, NetPlan, OptGen, PSS/E, PowerFactory, Organon, Anarede and Nodal. **Programming:** Python, Lua and Julia.

Business Intelligence Intern

Enedis - Électricité de France | jul. 2021 - dec. 2021

Development of tools for data management and analysis from the portfolio of the agency responsible for connecting renewable energy generators to the distribution network. **Softwares:** Érable/PowerFactory, Excel, PowerBI, Word and PowerPoint. **Programming:** VBA, DAX and M.

Operational Intern (Stage Ouvrier)

Trato - TLV | jan. 2020 - feb. 2020

Immersion in the operational environment of the factory in order to analyze management aspects such as human relations and occupational safety, culminating in a report.

Education

École Centrale Lille | 2019 - 2021

MSc. General Engineering - GPA 3.5/4

Double degree with a Capes-BRAFITEC excellence scholarship;

Extracurricular Activities:

- Vice-president of Brasa Lille: integration of Brazilians in Lille;
- Voltage Project: electric kart for university competition;
- Centrale Consulting Club: training for strategic consulting;
- Club Time: assisting international students at Centrale Lille;
- Les Mots Dits: theater club;
- Toastmasters: public speaking training.

Federal University of Rio de Janeiro | 2016 - 2023

BSc. Electrical Engineering - GPA 8.1/10

Final Project: "Smart grid operation: analysis of demand response impact".

Extracurricular Activities:

- Undergraduate Research at SMT-UFRJ Laboratory on machine learning for predicting defects in electric motors;
- Teaching Assistant for Logic Circuits and Electromagnetism.