

Lucas Pacheco

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Summary

Computer Engineering student at UERJ specializing in AI development and software engineering. Experienced in building AI applications, machine learning, and system optimization. Skilled in developing scalable software and automation solutions.

Skills

- Fluent Portuguese
- Advanced English
- Intermediate Spanish
- Advanced Python
- Advanced SQL
- Advanced HTML and CSS
- Advanced JavaScript
- Django and FastAPI
- Langchain and Ollama
- PostgreSQL
- React and NodeJS

Professional Experience

July 2024 – Present (Started as an intern April 2024 - June 2024)

AI & Automation Python Developer (Support Engineering Context)

Mundivox

- Developed and maintained Python-based tools to automate tasks related to optical network monitoring and incident handling.
- Created scripts to parse, analyze, and report network logs using Pandas and custom algorithms.
- Built a local AI-powered chatbot (RAG) to provide support team access to internal documentation and procedures.

Rio de Janeiro

May 2023 - May 2024

Software & Automation Researcher

CBPF (Brazilian Center for Physics Research)

- Developed automation systems using smart sensors.
- Designed algorithms for real-time data processing.

Rio de Janeiro

Education

Computer Engineering

UERJ, June 2022 - January 2027

Technical Diploma in IT

CEFET-RJ, January 2019 - December 2021

Certifications

- CS50x | CS50P | CS50AI - Harvard
- AI Fundamentals - IBM

Key Projects

AI-Powered Enterprise Chatbot for Mundivox

RAG-based AI chatbot that accesses Mundivox’s internal database and files to provide accurate, context-aware answers. Designed to run locally on company servers for data security, leveraging NLP and machine learning to enhance information retrieval and user interactions.

Database Development for Mundivox

Designed and implemented a database to store company data previously managed through .xlsx spreadsheets. Developed a user-friendly graphical interface and created tools for data queries and reporting.

Data Analysis Tool for CSN (Companhia Siderúrgica Nacional)

An algorithm to process large datasets from the cold rolling mill sector, automatically identifying defects in steel sheets and optimizing cutting strategies.