+351 911550082

miguelnf3991@gmail.com

linkedin.com/in/miguelnevesfernandes/

LANGUAGES

- Portuguese
- English

SKILLS

- Machine Learning, Computer Vision, Natural Language Processing (NLP)

  Large Language Models (LLMs), Retrieval-Augmented Generation (RAG), Agents

  Data Analysis, Feature Engineering, Statistical Analysis
- NumPy, Pandas, Matplotlib, Streamlit, Scikit-learn
- TensorFlow, PyTorch
- Python, SQL
- Basic experience with C#/C++

SOFT SKILLS

- Strong collaboration and teamwork
- Detail-oriented and analytical
- Critical thinking

Miguel Fernandes

Dynamic Machine Learning Engineer with a robust background in Biomedical and Data Science. Proven expertise in developing innovative solutions in computer vision and medical device technology. Adept at leveraging interdisciplinary skills to solve complex challenges and deliver tangible results.

EXPERIENCE

Machine Learning Engineer
Jun, 2023 – Aug, 2024

JTA, The Data Scientists – Porto, Portugal

- Conducted R&D on computer vision approaches for unsupervised image processing and segmentation.
- Focused on model training, performance evaluation, and identifying reliable techniques, combining the effectiveness of the methods under analysis with efficiency requirements.

Research Fellow in Medical Devices
Sept, 2021 – May, 2022

Orthos XXI, Wiseware, Coimbra Health School and Coimbra Institute of Engineering – Coimbra, Portugal

- Developed and patented an innovative rehabilitation device with ERDF funding
- Engineered a system using an EZS motor and ESP32 microcontroller with an embedded webserver.
- Created a Java-based Android app for managing physiotherapy sessions, integrated with the ESP32 webserver.
- Designed a patient monitoring system to enhance treatment effectiveness and provide actionable insights for healthcare professionals.

Medical Software Trainee
March, 2021 – Sept, 2021

Coimbra Health School and Coimbra Institute of Engineering

- Developed a desktop application with integrated database for Parkinson's patient gait analysis.
- Implemented real-time data reception via HTTP from an ESP32-based auditory stimuli device.
- Created tools for healthcare professionals to track and analyze patients' gait patterns across multiple sessions.

EDUCATION

MSc in Computer Science & Engineering

Coimbra Institute of Coimbra – Coimbra, Portugal

- Master of Science (MSc) degree in Computer Science & Engineering with a specialization in Intelligent Data Analysis.

BSc in Biomedical and Bioelectronics Engineering

Coimbra Institute of Coimbra – Coimbra, Portugal

- Bachelor of Science (BSc) in Biomedical and Bioelectronics Engineering.

PROJECTS

- **Employ-AI-bility:** a Streamlit-based chatbot that uses LangChain, HuggingFace embeddings, and a LLM to answer questions about a CV, featuring document retrieval and conversational memory, which job recruiters can talk to.
- **Breaking-bad-nlp:** a Streamlit web app that uses natural language processing and machine learning to classify themes in the BB tv show (or any tv series), visualizing results with Matplotlib and Seaborn.
- **Real-Time House Listings Dashboard:** a Streamlit app using PySpark and Kafka to process and visualize real-time housing data, featuring interactive filters and dynamic charts with Plotly.
- **Airline Passenger Satisfaction Prediction:** a Machine Learning project using Python, Pandas, and Scikit-learn to predict airline passenger satisfaction through exploratory data analysis and binary classification models.