

FERNANDO NUNO C. B. VIEIRA

f.nuno.ss@gmail.com | +351 91 821 03 42 | Faro, Portugal

<https://www.linkedin.com/in/fnvieira/>

<https://github.com/DrNOFX97>

ABOUT ME

Enthusiastic and motivated AI Engineer with a solid foundation in machine learning, data analysis, and software development. Recently completed a 9-week intensive course at IronHack, where I worked on projects involving natural language processing, computer vision, and predictive modeling. Adept at leveraging cutting-edge AI technologies and algorithms to solve complex problems. A quick learner and effective communicator, eager to apply my skills and passion for AI to drive innovation and success.

SKILLS

- **Machine Learning & AI Technologies:**
 - **Machine Learning:** Supervised/unsupervised learning, Naive Bayes, model selection
 - **Deep Learning:** BERT, LSTM, Transformers, CNN, RNN
 - **Generative AI:** Text generation, summarization, creative content (ChatGPT)
 - **Model Optimization:** QLoRA, PEFT
- **Natural Language Processing (NLP):**
 - **Advanced NLP:** NER, coreference resolution, semantic role labeling
 - **ChatGPT:** Fine-tuning for conversational AI and text applications
- **Retrieval-Augmented Generation (RAG):** Advanced RAG systems, multimodal RAG
- **Data Analysis & Evaluation:**
 - **Data Analysis:** Preprocessing, visualization, statistical analysis
 - **Evaluation Metrics:** BLEU, ROUGE, F1 scores
- **Programming & Development:**
 - **Languages:** Python, SQL
 - **Frameworks:** TensorFlow, Keras, PyTorch, Scikit-learn
 - **Software Development:** Version control (Git), debugging, testing
- **Computer Vision:**
 - **Techniques:** Image recognition, object detection
 - **Tools:** OpenCV
- **Databases & Frameworks:**
 - **Databases:** SQL, ChromaDB
 - **Vector Databases:** Pinecone, LangChain (including LangChain agents)
- **Cloud Platforms:** AWS, Google Cloud, Azure
- **Additional Skills:**
 - **Problem-Solving:** Critical thinking, algorithm design
 - **Communication:** Technical writing, presenting complex concepts
 - **Team Collaboration:** Agile methodologies, project management

PROJECTS

Deep Learning - Image Classification with CNN

- **Description:** Developed an image classification model using Convolutional Neural Networks (CNN) to accurately classify images into predefined categories.
- **Technologies:** Python, TensorFlow, Keras, OpenCV
- **Key Achievements:** Achieved a high classification accuracy on the test dataset, significantly improving the model's performance through data augmentation and hyperparameter tuning.

NLP Business Case: Automated Customer Reviews

- **Description:** Developed an NLP solution to automatically analyze and classify customer reviews, providing valuable insights into customer sentiments and feedback.
- **Technologies:** Python, Scikit-learn, BERT, Transformers
- **Key Achievements:** Successfully automated the classification of customer reviews into positive, negative, and neutral categories, achieving high accuracy and significantly reducing manual processing time.

Business Case: Multimodal AI ChatBot for YouTube Video QA

- **Description:** Created a multimodal AI chatbot capable of answering questions about YouTube videos by analyzing both video content and associated text.
- **Technologies:** Python, TensorFlow, OpenCV, LangChain, ChatGPT
- **Key Achievements:** Successfully integrated video analysis and natural language processing to provide accurate and context-aware responses to user queries.

EDUCATION

IronHack

- **Program:** Intensive AI Engineering Bootcamp
- **Duration:** 9 weeks
- **Key Highlights:**
 - Acquired in-depth knowledge in machine learning, deep learning, and natural language processing.
 - Developed and deployed AI models using Python, TensorFlow, Keras, and PyTorch.
 - Gained hands-on experience with advanced NLP techniques and generative AI, including text summarization and sentiment analysis.
 - Implemented sophisticated Retrieval-Augmented Generation (RAG) systems and multimodal RAG applications.
 - Built a variety of AI projects, including image classification with CNN, automated customer reviews analysis, and a multimodal AI chatbot for YouTube video QA.
 - Specialization in ChatGPT AI Tools: Implemented and fine-tuned ChatGPT models for conversational AI and text automation solutions, enhancing user-system interaction.
 - Collaborated with peers on real-world projects, enhancing teamwork and project management skills.

PROFESSIONAL EXPERIENCE

Airport Operations Management Faro Airport 1995 – 2021

Led airport operations, overseeing flight coordination, ground handling, and customer services. Implemented procedural enhancements and managed operational crises, significantly improving efficiency and safety.