



TOMÁS MADEIRA

GENERATIVE AI ENGINEER

CONTACT

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EDUCATION

2018 - 2020

INSTITUTO SUPERIOR TÉCNICO

- Master's Degree in Intelligent Systems

2019 - 2020

GHENT UNIVERSITY

- European study abroad
- Scholarship from Erasmus Grants

2018 - 2019

INSTITUTO TECNOLÓGICO DE BUENOS AIRES

- South America study abroad
- Scholarship from Santander Universities

SKILLS

- Generative AI
- Natural Language Processing
- Large Language Models
- Retrieval-Augmented Generation (RAG)
- Amazon Web Services

LANGUAGES

- English (Fluent)
- Portuguese (Fluent)
- Spanish (Fluent)
- Catalan (Advanced)

ABOUT

Tomás is a seasoned NLP Data Scientist with a history of developing AI solutions spanning both academic research and industry applications. He has proven proficiency in architecting and implementing high-performance systems, while collaborating with cross-functional teams. Tomás excels at aligning technological innovations with business objectives. He continuously expands his knowledge to stay current with AI advancements.

WORK EXPERIENCE

Generative AI Engineer

2023 - 2024

BIG Ai

- Built a multi-modal Retrieval-Augmented Generation (RAG) system with 5+ data sources, including web search, and periodic reflection to ensure continual content relevance and improve accuracy by 20%.
- Led company-wide Artificial Intelligence (AI) strategy, defining product portfolio and 12-month roadmap.

NLP Data Scientist

2021 - 2023

Siemens Energy

- Led Optical Character Recognition (OCR) pipeline, for processing 1M+ multilingual documents in 30+ languages and 20+ formats. Architected AWS/Azure multi-cloud solution.
- Deployed scalable and re-usable Named Entity Recognition (NER) micro-service for real-time data extraction, reducing manual search time by 100+ hours annually.
- Developed Topic Modelling and Search Engine tools for Research and Development (R&D), enabling visualization of 10k+ papers and accelerating discovery of research.
- Built in-house Applicant Tracking System (ATS) with NLP-powered analytics, 40% more customizable than standard tools, providing critical insights for hiring decisions.
- Supervised a Natural Language Query (NLQ) thesis project, using state-of-the-art Graph Database interfaces.

NLP Data Science Researcher

2020 - 2021

Instituto Superior Técnico

- Published peer-reviewed research on Natural Language Processing (NLP), pioneering methods linking Machine Learning (ML) to aviation safety.
- Influenced subsequent academic work, driving innovations in minimising aviation incidents.