

EXPERIENCE

Researcher

Lisbon

Instituto de Telecomunicações - Sardine Lab

Sep. 2024 - Present

- Working on context-efficient alternatives to the transformer architecture and their interpretability mechanisms.
- Advised by Prof. André Martins and Dr. Marcos Treviso.

Co-Founder

Lisbon/Munich

SMP Technologies

April 2023 - Dec. 2023

- Co-founded a startup to solve and automate enterprise problems with modern AI technologies.
- Developed product prototypes using GenAI, specifically LLMs, computer vision and diffusion.
- Designed and built the company's business infrastructure, deployed using AWS.

Research Assistant

Munich

Technical University of Munich - Sebis Lab

Nov. 2022 - July 2023

- Led a project evaluating different sparse models in abstractive summarization.
- Developed a framework for fine-tuning/evaluating various DL models in different NLP downstream tasks.
- Advised by Prof. Florian Matthes and Anum Afzal.

PUBLICATIONS

LaTIM: Measuring Latent Token-to-Token Interactions in Mamba Models

ArXiv Preprint

Hugo Pitorro, Marcos Treviso

Feb. 2025

How Effective are State Space Models for Machine Translation?

WMT24

Hugo Pitorro, Pavlo Vasylenko, Marcos Treviso, André F. T. Martins

Miami, Nov. 15-16, 2024

EDUCATION

Technical University of Munich

Munich

Master's in Informatics

Oct. 2021 - May 2024

- **Thesis:** Exploring Efficient Approaches for Long-Context NLP
- Completed several courses in ML, Scientific and Quantum Computing areas.
- Built a text simplification system with a pipeline of Deep Learning models.
- Worked on a financial assistant chatbot in the Chair of Digital Finance.
- Graduated with 1.8/5 average, ECTS: A.

Instituto Superior Técnico

Lisbon

Bachelor's in Computer Science and Engineering

Sep. 2018 - July 2021

- Coordinated group projects in areas like Software Engineering, Distributed Systems, Networking and ML.
- Graduated with 17/20 average (received Academic Merit Distinction certificate), ECTS: A.

PROJECTS

Politica Aberta

Lisbon

<https://politica-aberta.pt>

Dec. 2023 - Present

- Lead Developer of a Retrieval-Augmented Generation LLM system. The open-source project intends to simplify access to the political parties' election promises and manifests.
- Built the system using React, Flask and the OpenAI API. Github.

CERTIFICATES AND SKILLS

- **TOEFL iBT:** 115/120 - C2 English
- Python, PyTorch, Typescript, React, Docker