

# Gabriel Silva

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**Dynamic professional seeking a full-time role that provides opportunities for growth and development while addressing complex challenges.**

**My PhD taught me to have strong interpersonal skills, effective time management, and proven problem-solving abilities that can contribute to any collaborative and results-driven work environment.**

**I am committed to delivering high-quality research and fostering positive relationships within teams. Eager to make the jump from academia to industry so that I can impact the lives of millions.**

## Education

Expected in February 2026

### Ph.D. in Computer Science

University of Aveiro at Portugal

- Work done on multi-lingual Open Information Extraction with a focus on Portuguese. Focused on using Knowledge Graphs and merging them with Language Models for better language understanding.
- The programme is collaboration Program between 3 of the top Universities in Portugal (Aveiro, Porto and Minho).

Expected in December 2025

### Ph.D. in Computer Science

Linköping University at Sweden

- Exchange student in the NLP group of the Linköping University.

2021

### Master of Science in Computer Engineering

University of Aveiro at Aveiro, Portugal

- Worked on processing Ontologies and Text and creating classifiers that can align text (Job offers) with a given Ontology (ESCO).
- The final product was a Platform providing the region of Aveiro and the University with employment data and the skills that are missing from the region to better steer public policies.

## Work history

June 2020 - Current

### Researcher

*IEETA / Universidade de Aveiro, Aveiro*

- Published several papers on topics related to Natural Language Processing (NLP) and Knowledge Management (Knowledge Graphs, Ontologies), mainly focused on Open Information Extraction and Named Entity Recognition.
- Won funding for the project 'Natural Language Processing based on Graph Machine Learning and Deep Learning for Information Extraction' at the call Call on Advanced Computing Projects: Artificial Intelligence in Cloud (2nd edition). Collaboration between RNCA and Google. Project awarded 100% funding and 9.22 out of 10 (best grade).

- Collaborated with other departments and researchers in different areas (tourism and chemistry) on Projects that required Machine Learning insights which lead to the creation of more papers.
- Spent a semester abroad at Linköping University fostering relationships between Research Units and collaborating with their NLP group.
- Attained certifications for Machine Learning and CNNs
- Organization Committee SLATE'24: Part of the Organization Committee for SLATE (Symposium on Languages, Applications and Technologies) 2024.

September 2024 -  
Current

**Assistant Professor**

*ESTGA - Universidade de Aveiro, Portugal*

- Taught classes to Masters and Bachelor students, these classes were focused on Knowledge Graph Databases and Object Oriented Programming.
- Graded and created tests and assignments.
- Maintained regular office hours to provide struggling students with additional course help.

January 2022 - March  
2022

**Web and Android Developer**

*G-Lok Systems, England*

- Development of an Android app and Web Page for visualization of GPS signals by trucks using IoT devices.

August 2017 - October  
2017

**Web Developer**

*Turners (Soham), Soham, United Kingdom*

- Creation of a web portal for internal use that helped with yard management and truck positioning for their main loading / repairing site.
- Development was mainly done with JavaScript and PHP

## Main Publications

- **Benchmarking Portuguese Open Information Extraction** - LREC 2026 - Under Review
- **Deepening Graph-Based Approaches for Portuguese Open Information Extraction with LLM Augmentation** - Computer Speech and Language Journal - Gabriel Silva; Mário Jorge Ferreira Rodrigues; António Joaquim da Silva Teixeira; Marlene Amorim
- **Inductive Learning on Heterogeneous Graphs Enhanced by LLMs for Software Mention Detection** - ACL 2025 SDP Workshop - 07/2025 - Gabriel Silva; Mário Jorge Ferreira Rodrigues; António Teixeira; Marlene Amorim
- **Automating Job Post Alignment With Esco For Labor Market Insights** - WorldCIST25 - 04/2025 Gabriel Silva; Mário Rodrigues; Marlene Amorim; Armando Pinho
- **Advancing Open Information Extraction for Portuguese by Leveraging Graph Structures and Large Language Models** - IberSPEECH - 11/2024 - Gabriel Silva; Mário Rodrigues; António Teixeira; Marlene Amorim
- **OPENER - Open-NER in domains without annotated resources** - IberSPEECH - 11/2024 - Emanuel Matos; Gabriel Silva; Mário Rodrigues; António Teixeira

## Skills

- |   |                            |
|---|----------------------------|
| • Information Retrieval                   | • Named Entity Recognition |
| • Knowledge Graphs                        | • Graph Machine Learning   |
| • Ontologies and Knowledge Representation | • Language Models          |
| • Natural Language Processing             | • Python                   |
| • PyTorch                                 |                            |

## Certificates

- Machine Learning - Coursera: Course by Stanford that teaches the fundamentals of Machine Learning, from the basic models to neural networks and the math behind them.
- Convolutional Neural Networks: deeplearning.ai course on Convolutional Neural networks for computer vision taught on Coursera.

## Personal Projects

- Local LLM Deployment 01/2025 – Present: Interested in learning about local LLMs and the whole deployment pipeline as well as building RAG systems.
- Precision GPS location with the Sigfox network 09/2017 – 05/2018: Development of a precision gps location module using an arduino board and the low latency sigfox network.

## Languages

Portuguese



English



Spanish



German



## Interests

Information Retrieval, Knowledge Engineering, Natural Language Processing, Large Language Models, Ontologies, Knowledge Graphs