



Luís Borges

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Nationality: Portuguese

WORK EXPERIENCE

Priberam

City: Lisbon | Country: Portugal

[1 Jul 2018 – 1 Sep 2018] **Internship as Junior Researcher**

- Worked on the Ontonotes 5.0 Named Entity Recognition task.

Instituto de Engenharia de Sistemas e Computadores - Investigação e Desenvolvimento

City: Lisbon | Country: Portugal

[1 Jul 2018 – 31 Dec 2018] **Junior Researcher**

- Worked on a string matching NLP task.

National Institute of Informatics

City: Tokyo | Country: Japan

[15 Jan 2019 – 22 Apr 2019] **Visiting Junior Researcher**

- Worked on the FEVER fact verification task.

Instituto de Engenharia de Sistemas e Computadores - Investigação e Desenvolvimento

City: Lisbon | Country: Portugal

[1 Mar 2019 – 1 Sep 2019] **Junior Researcher**

- Worked on a string matching NLP task.

Carnegie Mellon University

City: Pittsburgh | Country: United States

[1 Jan 2022 – 1 May 2022] **Teaching Assistant for Search Engines Course**

- Under the supervision of Professor Jamie Callan.

Instituto de Engenharia de Sistemas e Computadores - Investigação e Desenvolvimento

City: Lisbon | Country: Portugal

[28 Feb 2025 – 28 Feb 2026] **Researcher**

- Working on distillation methods for small language models in the context of Information Retrieval.

EDUCATION AND TRAINING

[15 Sep 2013 – 15 Jul 2016] **B.Sc. in Information Systems and Computer Engineering**

Instituto Superior Técnico, University of Lisbon

City: Lisbon | **Country:** Portugal | | **NQF Level:** 15/20

M.Sc. in Information Systems and Computer Engineering

Instituto Superior Técnico, University of Lisbon

City: Lisbon | **Country:** Portugal | | **NQF Level:** 18/20

- Intelligent Systems and Software Engineering
- Under the supervision of Professors Bruno Martins and Pável Calado.
- M.Sc. Thesis: Detecting Fake News Using Deep Neural Networks (19/20)

[15 Sep 2016 – 31 Oct 2018]

Participation in the 8th Lisbon Machine Learning School (LxMLS)

Instituto Superior Técnico, University of Lisbon

City: Lisbon | **Country:** Portugal |

[1 Sep 2019 – Current]

Ph.D. in Language and Information Technologies

Instituto Superior Técnico and Carnegie Mellon University

City: Lisbon/Pittsburgh |

- Under the supervision of Professors Bruno Martins (IST) and Jamie Callan (CMU).
- Dual-Degree Program between Instituto Superior Técnico and Carnegie Mellon University.
- Thesis Topic: Learned Controlled Vocabularies for Efficient Sparse Retrieval with Dense Retrieval Effectiveness

LANGUAGE SKILLS

Mother tongue(s): Portuguese

Other language(s):

English

LISTENING C1 READING C1 WRITING C1

SPOKEN PRODUCTION B2 SPOKEN INTERACTION B2

Spanish

LISTENING B1 READING B2 WRITING A2

SPOKEN PRODUCTION A2 SPOKEN INTERACTION A2

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

SKILLS

Perseverance and resilience | independence and self-initiative | Having interpersonal communication skills | Ability to work in a team environment

PUBLICATIONS

Combining Similarity Features and Deep Representation Learning for Stance Detection in the Context of Checking Fake News

[2019]

Luís Borges, Bruno Martins, Pável Calado. ACM Journal of Data and Information Quality, volume 11, no. 3.

Assessing the Benefits of Model Ensembles in Neural Re-ranking for Passage Retrieval

[2021]

Luís Borges, Bruno Martins, Jamie Callan. European Conference on Information Retrieval (ECIR).

[2023] **KALE: Using a K-Sparse Projector for Lexical Expansion**

Luís Borges, Bruno Martins, Jamie Callan. ACM SIGIR International Conference on Theory of Information Retrieval (ICTIR).

[2023] [**Team CMU-LTI at TREC 2023 Tip-of-the-Tongue Track**](#)

Luís Borges, Jamie Callan, Bruno Martins. Text Retrieval Conference (TREC).

[2024] [**Generalizable Tip-of-the-Tongue Retrieval with LLM Re-ranking**](#)

Luís Borges, Rohan Jha, Jamie Callan, Bruno Martins. ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR).

[2026] **[UNDER REVIEW]**

Reference: Luís Borges, Bruno Martins, Jamie Callan. European Conference on Information Retrieval (ECIR).

Authors: Luís Borges, Bruno Martins, Jamie Callan

JOB-RELATED SKILLS

Information Retrieval

- Neural Passage Retrieval
- Tip-of-the-Tongue Retrieval
- Knowledge Distillation for Passage Retrieval
- TREC Participation

Machine Learning / Deep Learning

- Pytorch
- Tensorflow
- Keras
- Numpy
- Scipy
- SKLearn

Programming

- Python
- C
- C++
- Java

Other

- Software Engineering Practices
- Project Management

DRIVING LICENCE

Cars: B

HOBBIES AND INTERESTS

Reading, Cinema, Football