

EDUCATION

- Ph.D** in Computer Science Oct 2020–Oct 2024
 University of Lisbon (Instituto Superior Técnico) and University of Copenhagen
 Advisors: Bruno Martins and Desmond Elliott
 – Research Interests: multilingual and multimodal machine learning, retrieval augmentation, LLMs
- MSc** in Computer Science Sep 2016–Jun 2019
 Instituto Superior Técnico
 Specialization: Intelligent Systems
 Average Grade 19/20
 – Thesis: Grade 20/20, Journal submission (see [9] under Publications)
- PGDip** in Information Systems and Knowledge Management Sep 2015 –Jun 2016
 ISCTE – University Institute of Lisbon
 Average Grade 17/20
- BSc** in Computer Science Sep 2012–Jun 2015
 ISCTE – University Institute of Lisbon
 Average Grade 17/20

SELECTED PUBLICATIONS

1. GrammarMT: Improving Machine Translation with Grammar-Informed In-Context Learning
Rita Ramos, Everlyn Asiko Chimoto, Maartje Ter Hoeve, Natalie Schluter - *Under review*
2. Understanding Retrieval Robustness for Retrieval-augmented Image Captioning
 Wenyan Li, Jiaang Li, **Rita Ramos**, Raphael Tang, Desmond Elliott - *ACL 2024*
3. PAELLA: Parameter-Efficient Lightweight Language-Agnostic Captioning Model
R. Ramos, E. Bugliarello, B. Martins, D. Elliott - *NAACL Findings 2024*
4. LMCAP: Few-shot Multilingual Image Captioning by Retrieval Augmented Language Model Prompting
R. Ramos, B. Martins, D. Elliott - *ACL Findings 2023*
5. SMALLCAP: Lightweight Image Captioning Prompted with Retrieval Augmentation
R. Ramos, B. Martins, D. Elliott, Y. Kementchedjhieva - *CVPR 2023*
6. Retrieval-augmented Image Captioning
R. Ramos, D. Elliott, B. Martins - *EACL 2023*
7. Retrieval Augmentation for Deep Neural Networks
R. Ramos, P. Pereira, H. Moniz, JP. Carvalho, B. Martins - *IJCNN 2021*
8. Using neural encoder-decoder models with continuous outputs for remote sensing image captioning
R. Ramos, B. Martins - *IEEE Access 2022*
9. Evolving flocking in embodied agents based on local and global application of Reynolds' rules
R. Ramos, SM. Oliveira, SM. Viera, AL. Christensen - *PLOS ONE 2019*
10. Evolving controllers for robots with multimodal locomotion
R. Ramos, M. Duarte, SM. Oliveira, AL. Christensen - *SAB 2016*

EXPERIENCE

- Research Intern at Apple** Mar 2024 –Oct 2024
Working on LLMs for low-resource languages with Natalie Schluter.
– Outcome: a paper submitted (see [1] under Publications)
- Visiting Researcher at MBZUAI** Jan 2024 –Feb 2024
Collaborating with Prof. Yova Kementchedjhieva on multilingual image captioning.
- AI Researcher at INESC-ID** Jul 2019 –Sep 2020
Led a research project on remote sensing image captioning supervised by Prof. Bruno Martins.
– Outcome: a journal publication (see [8] under Publications)
- Data Scientist at advertio/Leadzai** Jul 2018 –Aug 2019
Created and developed the data science department at a startup of digital advertising.
- AI Researcher of Biomachines Lab at Instituto de Telecomunicações** Sep 2015 –Mar 2016
Led a research project on evolutionary robotics under the supervision of Prof. Anders Christensen.
– Involved unsupervised machine learning using neural networks combined with genetic algorithms
– Outcome: a conference publication (see [10] under Publications)

TEACHING

- **Teaching Assistant** at Instituto Superior Técnico, University of Lisbon Winter 2021
Deep Learning (AP-DEI)
– with Prof. André Martins and Prof. Mário Figueiredo

INVITED TALKS

- **SmallCap: Lightweight Image Captioning Prompted with Retrieval Augmentation**
Human Language Technology Lab (HLT) of INESC-ID Portugal, 2023
Mila - Quebec AI Institute Canada, 2023
- **Retrieval-augmented Image Captioning**
The Computer and Robot Vision Lab (VisLab) of Instituto Superior Técnico Portugal, 2022
IT University of Copenhagen Denmark, 2022

AWARDS AND SCHOLARSHIPS

- 1^o position at FCT Studentships for Doctoral Research in Computer Science 2020
- Award of Admission in the Post-graduate Degree 2015
- Best Finalist of Computer Science Bachelor 2015
- Award of Academic Excellence 2014/2015
- Award of Academic Excellence 2012/2013

SKILLS AND CERTIFICATES

- Python, Pytorch, NumPy, Pandas, scikit-learn
- REST-CL: REtreat for Students in Computational Linguistics 2023
- Sequence Models in Coursera 2018
- Neural Networks and Deep Learning in Coursera 2018
- Sequence Models in Coursera 2018
- Lisbon Machine Learning School 2016