Marcos Treviso

Curriculum Vitae

✉ marcosvtreviso@gmail.com
🖉 https://mtreviso.github.io
Google Scholar

Education

2019–2023	**PhD in Electrical and Computer Engineering**, *Instituto Superior Técnico*, University of Lisbon, Portugal.
	Selective Sparsity for Explainability with Applications to Translation Quality Estimation
	*With Distinction and Honour.
Supervisor	Dr. André F. T. Martins
2016–2017	**MSc in Computer Science and Computational Math.**, *University of São Paulo*, USP, SP, Brazil.
	Sentence Segmentation and Disfluency Detection in Narrative Transcripts from Neuropsychological Tests
	Average grade: 9/10. *Best MSc thesis at PROPOR 2018.
Supervisor	Dr. Sandra M. Aluísio
2012–2015	**BSc in Computer Science**, *Federal University of Pampa*, Unipampa, RS, Brazil.
	Two Deep Neural Networks for Part-of-Speech Tagging.
	Average grade: 88/100. *Ranked first in a class of 50 students.
Supervisor	Dr. Fábio N. Kepler

Selected Publications (*equal contribution)

○ A Joint Framework for Rationalization and Counterfactual Text Generation
Marcos Treviso*, Alexis Ross, Nuno Guerreiro, and André F. T. Martins
At ACL 2023.

○ Efficient Methods for Natural Language Processing: A Survey
Marcos Treviso*, Ji-Ung Lee*, Tianchu Ji*, Betty Aken, Qingqing Cao, Manuel R Ciosici, Michael Hassid, Kenneth Heafield, Sara Hooker, Pedro H Martins, André Martins, Peter Milder, Colin Raffel, Edwin Simpson, Noam Slonim, Niranjan Balasubramanian, Leon Derczynski, Roy Schwartz
At TACL 2023. Presented at ACL 2023.

○ CometKiwi: IST-Unbabel 2022 Submission for the QE Shared Task
Ricardo Rei*, **Marcos Treviso***, Nuno Guerreiro*, Chrysoula Zerva*, Ana C Farinha, Christine Maroti, José GC Souza, Taisiya Glushkova, Duarte M Alves, Alon Lavie, and André F. T. Martins
At WMT within EMNLP 2022. *Shared Task Winner

○ Learning to Scaffold: Optimizing Model Explanations for Teaching
Patrick Fernandes*, **Marcos Treviso***, Danish Pruthi, Graham Neubig, and André F. T. Martins
At NeurIPS 2022.

○ Predicting Attention Sparsity in Transformers
Marcos Treviso, António Góis, Patrick Fernandes, Erick Fonseca, and André F. T. Martins
At SPNLP within ACL 2022.

- Sparse Continuous Distributions and Fenchel-Young Losses
  André F. T. Martins, **Marcos Treviso**, António Farinhas, Pedro MQ Aguiar, Mário AT Figueiredo, Mathieu Blondel, and Vlad Niculae
  At JMLR 2022.

- IST-Unbabel 2021 Submission for the Explainable QE Shared Task
  Marcos Treviso, Nuno Guerreiro, Ricardo Rei, and André F. T. Martins   At Eval4NLP within EMNLP 2021. *⋆Shared Task Winner & Best Explainability Approach Award*

- The Explanation Game: Towards Prediction Explainability through Sparse Communication
  Marcos Treviso, and André F. T. Martins At BlackboxNLP within EMNLP 2020.

- Sparse and Continuous Attention Mechanisms
  André F. T. Martins, António Farinhas, **Marcos Treviso**, Vlad Niculae, Pedro Aguiar, and Mario Figueiredo
  At NeurIPS 2020. *⋆Spotlight Presentation*

- OpenKiwi: An Open Source Framework for Quality Estimation
  Fabio Kepler, Jonay Trénous, **Marcos Treviso**, Miguel Vera, and André F. T. Martins
  At ACL 2019. *⋆Best Demo Paper Award*

- Unbabel's Participation in the WMT19 Translation QE Shared Task
  Fabio Kepler, Jonay Trénous, **Marcos Treviso**, Miguel Vera, António Góis, M. Amin Farajian, António V. Lopes, and André F. T. Martins
  At WMT within ACL 2019. *⋆Shared Task Winner*

Experience

Reviewer (*outstanding reviewer)

2023	ACL
2022	EMNLP, EACL, NeurIPS*, ICLR*;
2021	EMNLP, ACL, EACL, NAACL-HLT
2020	EMNLP*, ACL, PROPOR

Industry

06–09/2018	**Junior Research AI Intern**, Unbabel, Lisbon Portugal.
I implemented neural networks in OpenKiwi, an open source tool for estimating the quality of machine translations. Under supervision of André F. T. Martins and Fábio Kepler.

Undergrad

2014–2015	**Undergraduate Researcher**, Unipampa, Alegrete RS Brazil.
I developed Python modules for data mining of researchers curricula in the Lattes Platform. Under supervision of Fábio Kepler and scholarships granted by CNPq and FAPERGS.

Skills

Languages	B. Portuguese (native), English (fluent), Spanish (basic)
Technical	Python, C, C++, PHP, HTML, CSS, JavaScript, LaTeX, Linux