

RICARDO COSTA DIAS REI

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📄 <https://scholar.google.com/citations?user=jf4S4tsAAAAJ&hl=en>



EDUCATION

PhD student in Artificial Intelligence

Instituto Superior Técnico

📅 2020 – Ongoing 📍 Lisbon, Portugal

Topic of research: Automatic evaluation of machine translation.

Advisors: Luisa Coheur and Alon Lavie

Masters in Information Systems and Computer Engineering

Instituto Superior Técnico

📅 2017 – 2019 📍 Lisbon, Portugal

Graduation in Computer Science and Engineering

Instituto Superior Técnico

📅 2013 – 2017 📍 Lisbon, Portugal

WORK EXPERIENCE

Research Scientist

Unbabel

📅 Jul 2018 - Present 📍 Lisbon, Portugal

I started as a research intern back in 2018, and since then, I have been working as a research scientist on several European funded projects (H2020 and P2020) in the field of Natural Language Processing

Topics: Machine Translation Evaluation, Automatic Transcription Enrichment, Sentiment Analysis, among others.

Visiting Student

Carnegie Mellon University

📅 May 2022 - Sep 2022 📍 Pittsburgh, Pennsylvania, United States

I spent a summer at the Language Technologies Institute - Carnegie Mellon University, collaborating with Alon Lavie on machine translation evaluation. Specifically, I focused on our participation in the WMT 2022 shared tasks on QE and Metrics. Our system achieved the first-place position in the QE shared task and secured the second position in the Metrics shared task.

Teaching Assistant

Instituto Superior Técnico - University of Lisbon

📅 Sep 2021 - Present 📍 Lisbon, Portugal

Teaching assistant for the **Natural Language Processing** MSc course.

Teaching assistant for the **Logic Programming** BSc course.

Text Mining Invited Professor

NOVA IMS - Information Management School

📅 Jan 2019 - Dec 2021 📍 Lisbon, Portugal

LIFE PHILOSOPHY

"I will take the ring, though I do not know the way." - Frodo Baggins

AWARDS

🏆 **EDP University Challenge**
Winner of the 2018 EDP University Challenge.

🏆 **IST Management Challenge**
Winner of the IST Global Management Challenge sponsored by EDP.

🏆 **Junior Surf Champion**
Winner of Portugal Surf Cup (2011), junior division.

🏆 **4x Regional Surf Champion**
Winner of CRCQL Carcavelos under-18 league in 2011, under-16 league in 2009 and 2010, and under-14 in 2008.

STRENGTHS

Hard-working

Critical Thinking

Good Time Management

Resilient

Artificial Intelligence

Natural Language Processing

Computer Science

LANGUAGES

Portuguese
English



HOBBIES

I consider myself an active person, and during my free time, I enjoy engaging in various activities. I am passionate about **surfing**, **running**, and going to the **gym** to maintain my fitness and overall well-being. Additionally, I find great pleasure in spending afternoons watching series/movies and listening to music

RESEARCH PUBLICATIONS

Ricardo Rei, Nuno M. Guerreiro, Marcos Treviso, Luisa Coheur, Alon Lavie, André F.T. Martins (2022). **“The Inside Story: Towards Better Understanding of Machine Translation Neural Evaluation Metrics”**. Proceedings of the 61st Annual Meeting of the Association for Computational Linguistics. URL: <https://arxiv.org/pdf/2305.11806.pdf>

Chrysoula Zerva, Taisiya Glushkova, Ricardo Rei, André F. T. Martins (2022). **“Disentangling Uncertainty in Machine Translation Evaluation”**. Proceedings of the 2022 Conference on Empirical Methods in Natural Language Processing. URL: <https://aclanthology.org/2022.emnlp-main.591/>

Markus Freitag, Ricardo Rei, Nitika Mathur, Chi-kiu Lo, Craig Stewart, Eleftherios Avramidis, Tom Kocmi, George Foster, Alon Lavie, André F. T. Martins (2022). **“Results of WMT22 Metrics Shared Task: Stop Using BLEU – Neural Metrics Are Better and More Robust”**. Proceedings of the Seventh Conference on Machine Translation (WMT). URL: <https://aclanthology.org/2022.wmt-1.2/>

Chrysoula Zerva, Frédéric Blain, Ricardo Rei, Piyawat Lertvittayakumjorn, José G. C. de Souza, Steffen Eger, Diptesh Kanojia, Duarte Alves, Constantin Orăsan, Marina Fomicheva, André F. T. Martins, Lucia Specia (2022). **“Findings of the WMT 2022 Shared Task on Quality Estimation”**. Proceedings of the Seventh Conference on Machine Translation (WMT). URL: <https://aclanthology.org/2022.wmt-1.3/>

Duarte Alves, Ricardo Rei, Ana C Farinha, José G. C. de Souza, André F. T. Martins (2022). **“Robust MT Evaluation with Sentence-level Multilingual Augmentation”**. Proceedings of the Seventh Conference on Machine Translation (WMT). URL: <https://aclanthology.org/2022.wmt-1.43/>

Ricardo Rei, José G. C. de Souza, Duarte Alves, Chrysoula Zerva, Ana C Farinha, Taisiya Glushkova, Alon Lavie, Luisa Coheur, André F. T. Martins (2022). **“COMET-22: Unbabel-IST 2022 Submission for the Metrics Shared Task”**. Proceedings of the Seventh Conference on Machine Translation (WMT). URL: <https://aclanthology.org/2022.wmt-1.52/>

Ricardo Rei, Marcos Treviso, Nuno M. Guerreiro, Chrysoula Zerva, Ana C Farinha, Christine Maroti, José G. C. de Souza, Taisiya Glushkova, Duarte Alves, Luisa Coheur, Alon Lavie, André F. T. Martins (2022). **“CometKiwi: IST-Unbabel 2022 Submission for the Quality Estimation Shared Task”**. Proceedings of the Seventh Conference on Machine Translation (WMT). URL: <https://aclanthology.org/2022.wmt-1.60/>

Patrick Fernandes, António Farinhas, Ricardo Rei, José G. C. de Souza, Perez Ogayo, Graham Neubig, André F. T. Martins (2022). **“Quality-Aware Decoding for Neural Machine Translation”**. Proceedings of the 2022 Conference of the North American Chapter of the Association for Computational Linguistics. URL: <https://arxiv.org/pdf/2205.00978.pdf>

Ricardo Rei, Ana C Farinha, José G. C. de Souza, Pedro Ramos, André F. T. Martins, Pedro Ramos, Luísa Coheur, Alon Lavie (2022). **“Searching for Cometininho: The Little Metric That Could”**. Proceedings of the 23rd Annual Conference of the European Association for Machine Translation. URL: <https://aclanthology.org/2022.eamt-1.9/>

Ricardo Rei, Ana C Farinha, Chrysoula Zerva, Daan van Stigt, Craig Stewart, Pedro Ramos, Taisiya Glushkova, André F. T. Martins, Alon Lavie (2021). **“Are References Really Needed? Unbabel-IST 2021 Submission for the Metrics Shared Task”**. Proceedings of the Sixth Conference on Machine Translation. URL: <https://aclanthology.org/2021.wmt-1.111/>

Markus Freitag, Ricardo Rei, Nitika Mathur, Chi-kiu Lo, Craig Stewart, George Foster, Alon Lavie, Ondrej Bojar (2021). **“Results of the WMT21 Metrics Shared Task: Evaluating Metrics with Expert-based Human Evaluations on TED and News Domain”**. Proceedings of the Sixth Conference on Machine Translation. URL: <https://aclanthology.org/2021.wmt-1.73/>

Chrysoula Zerva, Daan van Stigt, Ricardo Rei, Ana C Farinha, Pedro Ramos, José G. C. de Souza, Taisiya Glushkova, Miguel Vera, Fabio Kepler, André F. T. Martins (2021). **“IST-Unbabel 2021 Submission for the Quality Estimation Shared Task”**. Proceedings of the Sixth Conference on Machine Translation. URL: <https://aclanthology.org/2021.wmt-1.102/>

Marcos Treviso, Nuno M. Guerreiro, Ricardo Rei, André F. T. Martins (2021). **“IST-Unbabel 2021 submission for the explainable quality estimation shared task”**. Proceedings of the 2nd Workshop on Evaluation and Comparison of NLP Systems. URL: <https://aclanthology.org/2021.eval4nlp-1.14/>

Taisiya Glushkova, Chrysoula Zerva, **Ricardo Rei**, André F. T. Martins (2021). **“Uncertainty-Aware Machine Translation Evaluation”**. Findings of the Association for Computational Linguistics: EMNLP 2021. URL: <https://aclanthology.org/2021.findings-emnlp.330/>

Nuno Miguel Guerreiro, **Ricardo Rei**, Fernando Batista (2021). **“Towards better subtitles: A multilingual approach for punctuation restoration of speech transcripts”**. Journal - Expert Systems with Application. URL: <https://www.sciencedirect.com/science/article/abs/pii/S0957417421011180>

Ricardo Rei, Ana C Farinha, Craig Stewart, Luisa Coheur and Alon Lavie (2021). **“MT-Telescope: An interactive platform for contrastive evaluation of MT systems”**. Proceedings of the 59th Annual Meeting of the Association for Computational Linguistics and the 11th International Joint Conference on Natural Language Processing: System Demonstrations. URL: <https://aclanthology.org/2021.acl-demo.9/>

Vânia Mendonça, **Ricardo Rei**, Luisa Coheur, Alberto Sardinha and Ana Lúcia Santos (2021). **“Online Learning Meets Machine Translation Evaluation: Finding the Best Systems with the Least Human Effort”**. Proceedings of the 59th Annual Meeting of the Association for Computational Linguistics and the 11th International Joint Conference on Natural Language Processing (Volume 1: Long Papers). URL: <https://aclanthology.org/2021.acl-long.242/>

Bruno Jardim, **Ricardo Rei** and Mariana S. C. Almeida (2021). **“Multilingual Email Zoning”**. Proceedings of the 16th Conference of the European Chapter of the Association for Computational Linguistics: Student Research Workshop. Association for Computational Linguistics, Publishing, pp. 88–95. URL: <https://www.aclweb.org/anthology/2021.eacl-srw.13/>

Ricardo Rei, Craig Stewart, Ana C Farinha and Alon Lavie (2020). **“Unbabel’s Participation in the WMT20 Metrics Shared Task”**. In: Proceedings of the Fifth Conference on Machine Translation. Association for Computational Linguistics, Publishing, pp. 911–920. URL: <https://www.aclweb.org/anthology/2020.wmt-1.101/>

Ricardo Rei, Craig Stewart, Ana C Farinha and Alon Lavie (2020). **“COMET - Deploying a New State-of-the-art MT Evaluation Metric in Production”**. In: Proceedings of the 14th Conference of the Association for Machine Translation in the Americas (Volume 2: User Track). Association for Computational Linguistics, Publishing, pp. 78–109. URL: <https://www.aclweb.org/anthology/2020.amta-user.4/>

Ricardo Rei, Craig Stewart, Ana C Farinha and Alon Lavie (2020). **“COMET: A Neural Framework for MT Evaluation”**. In: Proceedings of the 2020 Conference on Empirical Methods in Natural Language Processing (EMNLP). Association for Computational Linguistics, Publishing, pp. 2685–2702. URL: <https://www.aclweb.org/anthology/2020.emnlp-main.213/>

Ricardo Rei, Nuno Miguel Guerreiro and Fernando Batista (2020). **“Automatic Truecasing of Video Subtitles Using BERT: A Multilingual Adaptable Approach”**. In: Information Processing and Management of Uncertainty in Knowledge-Based Systems. Ed. by Marie-Jeanne Lesot et al. Cham: Springer International Publishing, pp. 708–721. ISBN: 978-3-030-50146-4.