Nuno M Guerreiro

Personal Information

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Academic Qualifications

Current
Doctor of Philosophy in ELECTRICAL AND COMPUTER ENGINEERING
Instituto Superior Técnico, Lisbon
Advised by André F.T. Martins
Coursework Grade: 10/10

JUNE 2019
Master of Science in MECHANICAL ENGINEERING
Instituto Superior Técnico, Lisbon
Average Grade: 8/10 (top 3-17%) ● MSc Thesis: 9.5/10 (A)
Awarded the Portugal Air Summit Award for the most relevant academic work
in the industry during that year

JUNE 2016
Bachelor of Science in MECHANICAL ENGINEERING
Instituto Superior Técnico, Lisbon
Average Grade: 7.5/10
Top 5% of a class of 200+

Selected Publications

* = (co-)first authorship

Preprint

OPTIMAL TRANSPORT FOR UNSUPERVISED HALLUCINATION
DETECTION IN NEURAL MACHINE TRANSLATION
N.M. Guerreiro*, P. Colombo, P. Piantanida, A. Martins
arXiv.org

Published

LOOKING FOR A NEEDLE IN A HAYSTACK:
A COMPREHENSIVE STUDY OF HALLUCINATIONS IN NEURAL MACHINE TRANSLATION
N.M. Guerreiro*, E. Voita, A. Martins
EACL 2023 – European Chapter of the Association for Computational Linguistics

COMETKIWI: IST-UNBABEL 2022 SUBMISSION FOR THE QUALITY ESTIMATION SHARED TASK
R. Rei, M. Treviso, **N.M. Guerreiro***, C. Zerva, A. Farinha, C. Maroti, J. Souza, T. Glushkova,
D. Alves, A. Lavie, L. Coheur, A. Martins
2022 Seventh Conference on Machine Translation (WMT22) @ EMNLP 2022
Winners on all tracks

SPECTRA: SPARSE STRUCTURED TEXT RATIONALIZATION
N.M. Guerreiro*, A. Martins
EMNLP 2021 – Conference on Empirical Methods in Natural Language Processing

IST-UNBABEL 2021 SUBMISSION FOR THE EXPLAINABLE QUALITY ESTIMATION SHARED TASK
M.Treviso, **N.M. Guerreiro**, R.Rei, A. Martins
2nd Workshop on Evaluation and Comparison of NLP Systems @ EMNLP2021
Winners – Best Explainability Approach

TOWARDS BETTER SUBTITLES: A MULTILINGUAL APPROACH FOR PUNCTUATION RESTORATION
OF SPEECH TRANSCRIPTS
N.M. Guerreiro*, R.Rei, F. Batista
Expert Systems with Applications

Work Experience and Leadership

Nov 2019 May 2020	Unbabel, Lisbon *AI Engineer Intern*

- Worked on autocomplete features to help customer support agents worldwide deliver faster messages;
- Developed supervised models for automatic transcription enrichment (capitalization and punctuation restoration) of automatic speech recognition data. Our research culminated in two papers in peer-reviewed conferences and journals and winning submission to a shared-task at SEPP-NLG 2021.

Feb. 2017 Feb. 2019	Pedagogical Council of Instituto Superior Técnico, Lisbon *Student Vice-President*

- The student Vice-President of the Pedagogical Council is the head of student representation and holds an executive role in the School's management; elected by my peers (11k+ students).
- Delivered a school-wide restructuring proposal of all BSc and MSc courses grounded on the best pedagogical and teaching practices in the world (e.g. flexibility and multidisciplinarity). The proposal was officially implemented in 2021.

Jun. 2014 Jun. 2017	Board of Students of Mechanical Engineering, Lisbon *Presidency*

- Acted as Treasurer, Vice-President of Finance and Administration and President of the Board of Students of Mechanical Engineering at Instituto Superior Técnico;
- Delivered a revenue increase of approximately 900+% (revenue increased from EUR 2,000 to greater than EUR 20,000);
- Organised three significant annual summits relating to Mechanical Engineering – inviting a mix of prominent local and international companies, and speakers from Fortune 500 companies and government agencies (including NASA).

Teaching

Feb-Aug. 2022	Instituto Superior Técnico, Lisbon Deep Structured Learning, *Teaching Assistant*
Feb-Aug. 2020	NOVA IMS - Information Management School, Lisbon Text Mining, *Invited Professor*

Awards

Sep. 2022	**Winners on all tracks**. WMT Quality Estimation Shared Task
Nov. 2021	**Best Explainability Approach**. Eval4NLP Shared Task on Explainable Quality Estimation
Jun. 2021	**Winners**. SwissText Sentence End and Punctuation Prediction in NLG Text
Jun. 2019	**First Place**. Portugal Air Summit Award Recognizing outstanding relevant and innovative work in the area of Aerospace Science.
2014-2017	Distinction Award for outstanding academic performance in the academic years 2013/2014, 2014/2015, 2015/2016

Skills and Interests

Languages: Portuguese (Native), English (Fluent)
Technical Skills: Python (pytorch, numpy, scikit, pandas), MATLAB
Research Interests: Natural Language Processing, Machine Translation and Explainability