Taisiya Glushkova

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I am a ML/NLP researcher, broadly interested in **LLMs, Natural Language Generation Evaluation, Interpretability and Uncertainty Estimation**. I recently completed my PhD at SARDINE lab (IST, Lisbon). My doctoral research focused on enhancing the robustness of Machine Translation evaluation models and developing methods that can quantify and communicate the uncertainty associated with their outputs. This experience, combined with ongoing advancements in AI, fuels my curiosity about understanding language models, working with them, and ensuring their fairness and safety in practical applications.

Education

PhD in Computer Science and Engineering, Instituto Superior Técnico

Supervisors: André F. T. Martins, Chrysoula Zerva

Thesis title: Uncertainty Estimation and Robustness in Machine Translation Evaluation

Collaborative project MAIA (Multilingual AI Agent Assistants) – CMU Portugal Program partnership

Collaborative project NextGenAI (Center for Responsible AI).

MSc in Computer Science, HSE University

Lisbon, Portugal

2020 – 2024

2028 – 2020

Internships

Carnegie Mellon University
Research. Robust and interpretable machine translation evaluation. Supervisor: Alon Lavie.

HSE University
Research. Question-answering for Russian language.

Unbabel
Applied Al Research. Language model-based data filtering and selection for machine translation.

Yandex
Software Engineering. Classification and ranking of multiple object definitions by user relevance.

Pittsburgh, USA
2022

Moscow, Russia

Professional Experience

Instituto Superior TécnicoLisbon, PortugalPhD Researcher. Uncertainty estimation and robustness for efficient machine translation evaluation.2020 – 2024

Digital DecisionsMoscow, RussiaML Engineer2019 – 2020

Hierarchical classification and routing of customer messages for Vkusvill.

BSc in Applied Mathematics and Computer Science, HSE University

Named entity recognition for a speech assistant at Huawei.

Diginetica Moscow, Russia

Junior Data Scientist/Engineer

Spell checker for search queries suggesting synonymous corrections.

Extraction of concise summaries from product reviews.

Selected Publications

BLEU Meets COMET: Combining Lexical and Neural Metrics Towards Robust Machine Translation Evaluation

Taisiya Glushkova, Chrysoula Zerva, André F. T. Martins

[ACL Anthology, poster]

EAMT 2023

Disentangling Uncertainty in Machine Translation Evaluation Chrysoula Zerva, **Taisiya Glushkova**, Ricardo Rei, André F. T. Martins *EMNLP 2022* [ACL Anthology, poster]

2017

2014 - 2018

Uncertainty-Aware Machine Translation Evaluation

Taisiya Glushkova, Chrysoula Zerva, Ricardo Rei, André F. T. Martins

Presented at the Sixth Conference on Machine Translation (WMT21) at EMNLP 2021

EMNLP Findings 2021

COMET-22: Unbabel-IST 2022 Submission for the Metrics Shared Task

Ricardo Rei, José G. C. de Souza, Duarte Alves, Chrysoula Zerva, Ana C. Farinha,

Taisiya Glushkova, Alon Lavie, Luisa Coheur, André F. T. Martins

EMNLP WMT 2022, Second place on the WMT 2022 Metrics shared task

CometKiwi: IST-Unbabel 2022 Submission for the Quality Estimation Shared Task

[ACL Anthology]

[ACL Anthology, slides]

[ACL Anthology, poster]

Ricardo Rei, Marcos Treviso, Nuno M. Guerreiro, Chrysoula Zerva, Ana C. Farinha, Christine Maroti, José G. C. de Souza, **Taisiya Glushkova**, Alon Lavie, Luisa Coheur, André F. T. Martins

EMNLP WMT 2022, Winner of the WMT 2022 QE shared task

Are References Really Needed? Unbabel-IST 2021 Submission for the Metrics Shared Task

ACL Anthology

Ricardo Rei, Ana C. Farinha, Chrysoula Zerva, Daan van Stigt, Craig Stewart, Pedro G. Ramos,

Taisiya Glushkova, André F. T. Martins, Alon Lavie

EMNLP WMT 2021

Technical Skills

- Deep Learning, Machine Learning, Natural Language Processing.
- Fluent in Python, with minor experience with R and C++.
- Proficient with common data science libraries such as NumPy, pandas, matplotlib, scikit-learn, and transformers.
- Comfortable with common data science tools, e.g. bash, git, Linux, slurm, Jupyter Notebook, and Google Colab.
- Experience with Deep Learning frameworks: PyTorch, keras.

Teaching

Instituto Superior Técnico Teaching Assistant for Deep Learning course	Lisbon, Portugal 2021 – 2022
HSE University Teaching Assistant for Natural Language Processing (NLP) course Teaching Assistant for Python course	Moscow, Russia 2018 – 2019 2016 – 2018

University Projects

Graduation Thesis (MSc), DaNetQA: a Dataset for Binary Question Answering in Russian	2019 – 2020
Coursework, Detecting Uncertain Information in Natural Language Texts	2018 - 2019
Graduation Thesis (BSc), Character Level Models for Hashtag Segmentation	2017 - 2018
Coursework, Collecting Dictionaries for Sentiment Analysis of Reviews	2016 - 2017
Coursework, Extracting Timestamps from News in English Language	2015 - 2016

Extracurricular Activities

Participated in a poster session at Center for Responsible AI Demo Day	June 2024
Mentored junior PhD students, providing guidance on research projects and academic writing	2023-2024
Participated in a poster session at CMU Portugal 2022 Summit	November 2022
Participated in LxMLS (8th Lisbon Machine Learning School)	Summer 2018
Freshmen student advisor: helped students to choose courseloads and adjust to university life	2015 - 2017
Organized university-wide events such as the Annual Open House	2015