# Taisiya Glushkova

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I am a ML/NLP engineer, broadly interested in LLMs, Natural Language Generation Evaluation, Interpretability and Uncertainty Estimation. I recently completed a PhD, where 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 Lisbon, Portugal Supervisors: André F. T. Martins, Chrysoula Zerva 2020 - 2024Thesis title: Uncertainty Estimation and Robustness in Machine Translation Evaluation Collaborative project MAIA (Multilingual AI Agent Assistants) - CMU Portugal Program partnership Collaborative project NextGenAl (Center for Responsible AI). MSc in Computer Science, HSE University 2018 - 2020BSc in Applied Mathematics and Computer Science, HSE University 2014 - 2018

Internships	
Carnegie Mellon University Research. Robust and interpretable machine translation evaluation. Supervisor: Alon Lavie.	Pittsburgh, USA 2022
HSE University Research. Question-answering for Russian language.	Moscow, Russia 2019 – 2020
<b>Unbabel</b> Applied Al Research. Language model-based data filtering and selection for machine translation.	Lisbon, Portugal 2019
Yandex Software Engineering. Classification and ranking of multiple object definitions by user relevance.	Moscow, Russia 2015

## **Professional Experience**

Instituto Superior Técnico

PhD Researcher. Uncertainty estimation and robustness for efficient machine translation evaluation.	2020 - 2024
Digital Decisions	Moscow, Russia
ML Engineer	2019 – 2020
Hierarchical classification and routing of customer messages for Vkusvill.	

Lisbon, Portugal

Named entity recognition for a speech assistant at Huawei.

Diginetica Moscow, Russia Junior Data Scientist/Engineer 2017

Spell checker for search queries suggesting synonymous corrections.

Extraction of concise summaries from product reviews.

#### 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.

# **Selected Publications**

Chrysoula Zerva, Taisiya Glushkova, Ricardo Rei, André F. T. Martins  EMNLP 2022  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 Ricardo Rei, Marcos Treviso, Nuno M. Guerreiro, Chrysoula Zerva, Ana C. Farinha, Christine Maroti, José C. de Souza, Taisiya Glushkova, Alon Lavie, Luisa Coheur, André F. T. Martins  EMNLP WMT 2022, Taisiya Glushkova, Alon Lavie, Luisa Coheur, André F. T. Martins  EMNLP WMT 2022, Taisiya Glushkova, Alon Lavie, Luisa Coheur, André F. T. Martins  EMNLP WMT 2022, Taisiya Glushkova, Alon Lavie, Luisa Coheur, André F. T. Martins  EMNLP WMT 2022, Taisiya Glushkova, Alon Lavie, Luisa Coheur, André F. T. Martins  EMNLP WMT 2021  Teaching  Instituto Superior Técnico  Lisbon, Portugal Taisiya Glushkova, Aloré F. T. Martins, Alon Lavie  Moscor, Russia  Lisbon, Portugal Teaching Assistant for Deep Learning course  Disching Assistant for Python course  University Projects  Graduation Thesis (MSC), DaNetQA: a Dataset for Binary Question Answering in Russian  2019 – 2020  Coursework, Detecting Uncertain Information in Natural Language Texts  Coursework, Collecting Dictionaries for Sentiment Analysis of Reviews  Coursework, Collecting Dictionaries for Sentiment Analysis of Reviews  Extracurricular Activities  Extracurricular Activities  Participated in a poster session at Center for Responsible Al   Demo Day  Mentored junior PhD students, providing guidance on research projects and academic writing  Participated in a poster session at CMU Portugal 2022 Summit  November 2022  Partic		
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