

Daryna Dementieva

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RESEARCH INTERESTS	natural language processing for social good, fake news detection, multilingualism, hate speech combating, text detoxification, text style transfer, explainable AI
EDUCATION	<p>November 2019 – September 2022 Ph.D. in Computer Science Skolkovo Institute of Science and Technology (Skoltech), Moscow <i>Thesis:</i> Methods for Fighting Harmful Multilingual Information <i>Supervisor:</i> Ass. Prof. Alexander Panchenko <i>Links:</i> information and video of the defense</p> <p>September 2017 – August 2019 Master of Science in Applied Math and Physics Moscow Institute of Science and Technology (MIPT), Moscow <i>Thesis:</i> News Aggregation and Personalization for Professional Groups <i>Supervisor:</i> Prof. Konstantin Vorontsov</p> <p>September 2013 – August 2017 Bachelor of Science in Applied Math Taras Shevchenko's Kyiv National University (KNU), Kyiv</p>
EXPERIENCE	<p>Postdoctoral Researcher TUM Munich Jun 2022 - now <i>Teaching:</i> Lab Courses, Bachelors, and Masters theses supervision; NLP lectures. <i>Research Projects:</i> eXplainable AI (XAI) for NLP models; Safe and Fair Human-written and Machine-generated Texts; Multilingual and Ukrainian NLP.</p> <p>Research Engineer Skoltech Moscow Mar 2021 - Mar 2022 Leading the <i>Text Detoxification</i> project connected with PhD studies. The results of the research were formed as 2 ACL papers, 1 journal paper, RUSSE'22 shared task, and were deployed into MTS.AI chatbot.</p> <p>Data Science Intern Beiersdorf Hamburg Jun 2018 - Aug 2018 Concept design and prototype development of the automatic trends extractor from texts from social networks.</p> <p>Data Scientist Visiology Moscow Aug 2017 - Aug 2019 <i>NLP2SQL:</i> Chat-bot assistant for Business Intelligence. The chat-bot was presented at Business Intelligence 2.0 conference (1.5k attendees) as the first Russian BI chat-bot and was deployed as ViTalk.</p>
SELECTED PUBLICATIONS (GOOGLE SCHOLAR)	<p>D Dementieva, D Moskovsky, D Dale, A Panchenko, "Cross-lingual Text Style Transfer: The Case of Text Detoxification", <i>AACL 2023</i></p> <p>E Mosca, D Dementieva, T Ajdari, M Kummeth, K Gringauz, Y Zhou, G Groh, "IFAN: An Explainability-Focused Interaction Framework for Humans and NLP Models", <i>AACL 2023</i></p> <p>D Dementieva, M Kuimov, A Panchenko, "Multiverse: Multilingual Evidence for</p>

Fake News Detection", *Journal of Imaging*, 2023

V Logacheva*, **D Dementieva***, S Ustyantsev, D Moskovskiy, D Dale, I Krotova, N Semenov, A Panchenko, "[ParaDetox: Detoxification with Parallel Data](#)", *ACL*, 2022

D Dale, A Voronov, **D Dementieva**, V Logacheva, O Kozlova, N Semenov, A Panchenko, "[Text Detoxification using Large Pre-trained Neural Models](#)", *EMNLP*, 2021

D Dementieva, D Moskovskiy, V Logacheva, D Dale, O Kozlova, N Semenov, A Panchenko, "[Methods for detoxification of texts for the russian language](#)", *MDPI*, 2021

E Kasneci, K Seßler, S Küchemann, M Bannert, **D Dementieva**, F Fischer, ... G Kasneci. "[ChatGPT for good? On opportunities and challenges of large language models for education](#)". *Learning and individual differences*, 2023

D Dementieva, A Panchenko, "[Cross-lingual Evidence Improves Monolingual Fake News Detection](#)", *ACL SRW*, 2021

TALKS AND POSTERS

Adam-Smith at SemEval-2023 Task 4: Discovering Human Values in Arguments with Ensembles of Transformer-based Models

15 June, 2023, [ACL 2023](#), [SemEval Workshop](#), Toronto, Canada, **talk**

AdamR at SemEval-2023 Task 10: Solving the Class Imbalance Problem in Sexism Detection with Ensemble Learning

16 June, 2023, [ACL 2023](#), [SemEval Workshop](#), Toronto, Canada, **poster**

Methods for Fighting Harmful Multilingual Information

27 June, 2023, [Mannheim NLP Group](#), Mannheim, Germany, **talk**

Methods for Text Style Transfer: Text Detoxification Case

18 April, 2023, [PyCon&PyData](#), Berlin, Germany, **talk**

Methods for Fighting Harmful Multilingual Information

1 November, 2022, [Language Technology Group](#), Hamburg, Germany **talk**

NLP for Social Good: Methods for Fighting Harmful Multilingual Textual Content

26 October, 2022, [MunichNLP](#), Germany **talk**

Methods for Text Style Transfer: Text Detoxification Case

20 October 2022, [MilanoNLP](#), online **talk**

Methods for Fighting Harmful Multilingual Information

15 June 2022, [CIS LMU](#), Munich, Germany **talk**

A Study on Manual and Automatic Evaluation for Text Style Transfer: The Case of Text Detoxification

25 May 2022, [ACL 2022 HumEval Workshop](#), Dublin, Ireland **talk**

ParaDetox: Detoxification with Parallel Data

27 May 2022, [ACL 2022](#), Dublin, Ireland, **poster**

Fake News Detection using Multilingual Evidence

July 2021, [TrustWorthy AI](#), Moscow, Russia **talk**

Virtual Assistant ViTalk or Human Business Intelligence

May 2019, [DataFest](#), Moscow, Russia **talk**

TEACHING EXPERIENCE

NLP Lab Course, XAI for Machine Learning, TUM, 2022-2023: projects supervision
Natural Language Processing, TUM, 2022-2023: lecturer
Statistical NLP, Neural NLP, Skoltech, 2019-2021: seminars, projects supervision

MENTORING

Arda Andirin (Masters, 2024, TUM) *"Explainable Fact-Checking in News Datasets with Large Language Models"* (ongoing)

Shaghayegh Koli (Masters, 2024, TUM) *"Fake News and Machine-generated Text Detection for Persian and English"* (ongoing)

Valeriia Khylenko (Masters, 2024, TUM) *"Cross-lingual Text Classification Knowledge Transfer to Ukrainian language"* (ongoing)

Adam Rydelek (Masters, 2023, TUM) *"Sexism in Social Media – Explainable Detection Using Deep Learning Models"* ([paper](#))

Daniel Schroter (Masters, 2023, TUM) *"Discovering Human Values Behind Arguments – A Case for Transformer-based Models and Explainable AI"* ([paper](#))

Yen-Yu Chang (Masters, 2023, TUM) *"Exploration of Approaches to Counter Hate Speech: The Case of Sexist Speech"*

Yuliana Poliakova (Bachelor, 2023, TUM) *"Detecting the Persuasion Techniques in Online News"*

Daniil Moskovsky (Masters, 2022, Skoltech) *"Supervised Text Detoxification Methods"* ([paper](#))

Mikhail Kuimov (Masters, 2022, Skoltech) *"Multilingual and Cross-lingual Approaches to Processing of News Texts"* ([paper](#))

OPENSOURCE CONTRIBUTION (GITHUB)

One of the main admins of [s-nlp](#) with contributions: [En-](#) and [Ru-ParaDetox](#) datasets, English [roberta.toxicity_classifier](#), SOTA text detoxification models for [English](#) and [Russian](#); SOTA mDeberta formality [classifier](#).
All research about Text Detoxification project summarized at the [github](#) page.

Founder of [tum-nlp](#).

INTERESTS

jogging, yoga, water sports, psychology, feminism, rock'n'roll