Iuliia Zaitova

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RESEARCH INTERESTS

Representation Learning, NLP, Data Science, Cross-lingual studies

EDUCATION

Universität des Saarlandes

SFB 1102, project C4

PhD in Computational Linguistics

2022 - present

Advisors: Prof. Dr. Tania Avgustinova, Prof. Dr. Dietrich Klakow, Prof. Dr. Bernd Möbius

Thesis: Non-Compositionality in Cross-Linguistic Intercomprehension

Universität des Saarlandes

Department of Language Science and Technology

Advisors: Dr. Badr M. Abdullah, Prof. Dr. Dietrich Klakow

MSc in Language Science and Technology

Thesis: Modeling Mutual Spoken Word Intelligibility between Slavic languages

Udmurt State University

Department of Translation and Applied Linguistics

BA with Honours in Linguistics (specialization: Translation)

2014 - 2018

2019 - 2022

Advisor: Dr. Irina Ryabkova

Thesis: Summary translation in the media: strategies, trends, problems

TECHNICAL SKILLS

Programming Languages: Python, R, C++

Libraries and Tools: PyTorch, transformers, huggingface, Sklearn, Pandas, Numpy, Git, Docker, etc. Natural Languages: Russian (native), English (C1, 113/120 TOEFL), German (B2), Udmurt (A2)

TEACHING

NLP for Receptive Multilingualism

Block Seminar Winter 2024

Design an NLP course of your dream

Hackathon at LCT Summer School

Summer 2024

Tools for NLP

Intro to Unix systems, Bash, Vim, Git, Python, cluster computing, and LaTeX

Winter 2023

WORK EXPERIENCE

Research Assistant

Language Technology and Mulilinguality Lab at DFKI

2021 - 2022

- Development of a self-supervised ML algorithm for procedural text annotation
- Statistical analysis of entity extraction algorithms
- Data processing and annotation

Research Assistant

Spoken Language Systems (LSV) at Universität des Saarlandes

2020 - 2022

- Assistance in developing computational models of language typology, using a variety of NLP algorithms
- Processing of text and speech: speech alignment, working with corpora
- Work with Phoible, Northeuralex, FastText

Research Assistant

Information and Service Systems

2019 - 2020

- Development of Sales Prediction Neural Models
- Web development (Bokeh)

Freelance Translator (English to Russian)

Amara 2016 - 2019

FUNDING

Interspeech 2024 Grant

Small Grant Scheme for Doctoral Researchers of the MGK - CRC 1102

• Collaboration with Dr. Wei Xue on the project "Validating the effects of additional visual information on spoken perception of mutual intelligibility

Saarland Stipendium 2021

PUBLICATIONS

"Attention on Multiword Expressions: A Multilingual Study of BERT-based Models with Regard to Idiomaticity and Microsyntax" **Iuliia Zaitova**, Vitalii Hirak, Badr Abdullah, Bernd Möbius, Dietrich Klakow, and Tania Avgustinova (in review)

"Predictability of Microsyntactic Units across Slavic Languages: A translation-based Study" Maria Kunilovskaya, Iuliia Zaitova, Wei Xue, Irina Stenger, and Tania Avgustinova (in review)

"Comparing Cross-Linguistic Intelligibility of Non-Compositional Expressions in Spoken vs. Spoken and Written Modalities" **Iuliia Zaitova**, Wei Xue, Irina Stenger, Bernd Möbius, Dietrich Klakow, and Tania Avgustinova (in review)

"Predictability of Microsyntactic Units across Slavic languages: A translation-based Study" **Iuliia Zaitova**, Irina Stenger, Wei Xue, Maria Kunilovskaya, and Tania Avgustinova (abstract at MetaCol 2024)

"Cross-Linguistic Intelligibility of Non-Compositional Expressions in Spoken Context" **Iuliia Zaitova**, Irina Stenger, Wei Xue, Tania Avgustinova, Bernd Möbius, Dietrich Klakow (Interspeech 2024)

"Cross-Linguistic Processing of Non-Compositional Expressions in Slavic Languages" **Iuliia Zaitova**, Irina Stenger, Muhammad Umer Butt and Tania Avgustinova (CogAlex 2024)

"Microsyntactic Unit Detection using Word Embedding Models: Experiments on Slavic Languages" **Iuliia Zaitova**, Irina Stenger, and Tania Avgustinova (RANLP 2023)

"Mapping Phonology to Semantics: A Computational Model of Cross-Lingual Spoken-Word Recognition" **Iuliia Zaitova**, Badr M. Abdullah, and Dietrich Klakow (VarDial 2022)

"How familiar does that sound? Cross-lingual representational similarity analysis of acoustic word embeddings" Badr M. Abdullah, **Iuliia Zaitova**, Tania Avgustinova, Bernd Möbius, Dietrich Klakow (BlackboxNLP 2021)

"Do Acoustic Word Embeddings Capture Phonological Similarity? An Empirical Study" Badr M. Abdullah, Marius Mosbach, **Iuliia Zaitova**, Bernd Möbius and Dietrich Klakow (Interspeech 2021)

PRESENTATIONS

"Language Models for Predictive Analysis of Intercomprehension Studies" (SFB 1102 Multilingual modelling workshop 2024)

"Microsyntactic Unit Analysis using Word Embedding Models - Experiments on Slavic Languages" (TaCoS 2023)

"Microsyntactic Unit Detection using Word Embedding Models" (Poster at SFB Network meeting at UMLV)

"Microsyntactic Unit Detection using Word Embedding Models" (SFB1102 retreat 2023)

"Cross-linguistic processing of non-compositional expressions in Slavic languages" (Phonetics Colloquium at Saarland University)

EXTRACURRICULAR

| Summer School on Linguistic Variabilty Berlin, Germany | UMIV 2023 |
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| Summer School on Deep Learning in NLP Varna, Bulgaria | RANLP 2023 |
| Summer School: Virtual SemDial 24 online | WatchDial 2020 |
| Au Pair in Germany Essen | 2019 |
| Work & Travel Baltimore, USA | 2017 |