Sardana Ivanova

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Languages: Sakha (Native), Russian (Native), English (C1), Japanese (B2), Finnish (B1)

Profile

I am a senior research scientist at Popoulos Analytics. I successfully defended my doctoral dissertation titled "Language Technology Tools for Low-Resource Languages—Five Cases for Sakha, Norwegian, and Finnish" in March 2024 and I was awarded a PhD degree by the University of Helsinki, under the Department of Computer Science. I am passionate about language technology for low-resource, indigenous and marginalised languages. I am a member of the Association of Computational Linguistics (ACL), Turkic Interlingua; a secretary of the ACL Special Interest Group on Turkic Languages (SIGTURK).

Education

Years	University	Title awarded
2019–2024	University of Helsinki	Computer Science, PhD
2015–2017	North-Eastern Federal University (Yakutsk)	Information Technologies 2017, MSc
2011–2015	North-Eastern Federal University (Yakutsk)	Information Technologies 2015, BSc
2007–2012	North-Eastern Federal University (Yakutsk)	Japanese Language 2012, BA,MA

Positions held

Year	Organisation	Title	Location
2023-Present	Popoulos Analytics	Senior research scientist	Helsinki, Finland
2022-2023	Kasvu Labs	NLP specialist	Helsinki, Finland
2019–2023	University of Helsinki	Doctoral researcher	Helsinki, Finland
2022	University of Oslo	Visiting doctoral researcher	Oslo, Norway
2017	North-Eastern Federal University	Laboratory supervisor	Yakutsk, Russia
2014–2015	Mytona LLC	C++ programmer	Yakutsk, Russia

Grants and awards

Grants

Year	Awarding body	Description	Duration
2022	University of Oslo's Teksthub	Coordination of annotation of question answering dataset for Norwegian	6 months
2018	Finnish National Agency for Education	EDUFI Fellowship for doctoral studies in the University of Helsinki, Finland	12 months
2016	University of the Arctic	North2North grant for exchange studies in the university of Helsinki, Finland	4 months
2016	Erasmus Mundus	Grant for exchange studies in the University of Groningen, The Netherlands	5 months

Honours and awards

Year	Awarding body	Description	Location
2017	North-Eastern Federal University	Sofia Sidorova's Governmental Scholarship	Yakutsk, Russia
2017	North-Eastern Federal University	Master's diploma with Honors	Yakutsk, Russia
2016	Ultrahack	Ultrahack 2016 hackathon Health track winner	Helsinki, Finland
2015	North-Eastern Federal University	Bachelor's diploma with Honors	Yakutsk, Russia

Professional skills
Python: advanced
Deep learning frameworks (PyTorch, Keras, HuggingFace Transformers): advanced

Publications
Conference papers
9. **Ivanova, S.**, Andreassen, F., Jentoft, M., Wold, S. & Øvrelid, L. (2023) "NorQuAD: Norwegian Question Answering Dataset". Proceedings of the 24th Nordic Conference on Computational Linguistics (NoDaLiDa).

8. Boggia, M., **Ivanova, S.**, Linkola, S., Kantosalo, A., and Toivonen, H. (2022) "One Line at a Time—Generation and Internal Evaluation of Interactive Poetry". Proceedings of the 13th International Conference on Computational Creativity. ACC.

7. Boggia, M., **Ivanova, S.**, Linkola, S., Toivonen, H., and Kantosalo, A. (2022) "Casual Poetry Creators: A Design Pattern and Internal Evaluation Measures". Proceedings of the 13th International Conference on Computational Creativity. ACC.

6. **Ivanova, S.**, Washington J. N., and Tyers, F. M. (2022) "A Free/Open-Source Morphological Analyser and Generator for Sakha". Proceedings of the 12th Conference on Language Resources and Evaluation (LREC 2022)

5. Zosa, E., Pivovarova, L., Boggia, M. and **Ivanova, S.** (2022) "Multilingual Topic Labelling of News Topics using Ontological Mapping". Advances in Information Retrieval. (ECIR 2022)

4. Mirzakhalov, J., Babu, A., Ataman, D., Kariev, S., Tyers, F. M., Abduraufov, O., Hajili, M., **Ivanova, S.**, Khaytbaev, A., Laverghetta, A., Moydinboyev, B., Önal, E., Pulatova, S., Wahab, A., Fırat, O., and Chellappan, S. (2021) "A Large-Scale Study of Machine Translation in Turkic Languages". Proceedings of the 2021 Conference on Empirical Methods in Natural Language Processing (EMNLP)

3. Mirzakhalov, J., Babu, A., Kunafin, A., Wahab, A., Moydinboyev, B., **Ivanova, S.**, Uzokova, M., Pulatova, S., Ataman, D., Kreutzer, J., Tyers, F. M., Fırat, O., Licato, J., and Chellappan, S. (2021) "Evaluating Multiway Multilingual NMT in the Turkic Languages". Proceedings of the Sixth Conference in Machine Translation (WMT20)

2. Katinskaia, A., **Ivanova, S.**, and Yangarber, R. (2020) "Toward a Paradigm Shift in Collection of Learner Corpora". Proceedings of the 12th Conference on Language Resources and Evaluation (LREC 2020)

1. **Ivanova, S.**, Katinskaia, A., and Yangarber, R. (2019) "Tools for supporting language learning for Sakha". Proceedings of the 22nd Nordic Conference on Computational Linguistics (NoDaLiDa)

Workshop papers
4. Mahlum, P. & **Ivanova, S.** (2023) "Phonotactics as an Aid in Low Resource Loan Word Detection and Morphological Analysis in Sakha". Proceedings of the Second Workshop on Resources and Representations for Under-Resourced Languages and Domains (RESOURCEFUL-2023).

3. **Ivanova, S.**, Tyers, F. M., and Washington, J. N. (2021) "A Prototype Free/Open-Source Morphological Analyser and Generator for Sakha". 5th Widening NLP (WiNLP2021) workshop

2. Pimentel, T., Ryskina, M., Mielke, S. J., Wu, S., Chodroff, E., Leonard, B., Nicolai, G., Ate, Y. G., Khalifa, S., Habash, N., El-Khaissi, C., Goldman, O., Gasser, M., Lane, W., Coler, M., Oncevay, A., Montoya Samame, J. R., Silva Villegas, G. C., Ek, A., Bernardy, J-P., Shcherbakov, A., Bayyr-ool, A., Sheifer, K., Ganieva, S., Plugaryov, M., Klyachko, E., Salehi, A., Krizhanovsky, A., Krizhanovsky, N., Vania, C., **Ivanova, S**., et al. (2021) "SIGMORPHON 2021 Shared Task on Morphological Reinflection: Generalization Across Languages". Proceedings of the 18th SIGMORPHON Workshop on Computational Research in Phonetics, Phonology, and Morphology

1. Katinskaia, A., **Ivanova, S.**, and Yangarber, R. (2019) "Multiple Admissibility in Language Learning: Judging Grammaticality using Unlabeled Data". Proceedings of The 7th Workshop on Balto-Slavic Natural Language Processing

Reviewing
Workshops
- SIGTURK—workshop on natural language processing for Turkic languages 2024
- LoResMT—low-resource machine translation workshop 2020, 2022, 2024
- RESOURCEFUL—workshop for resources and representations for under-resourced languages and domains 2023

Summer schools
- ProbAI Nordic Probabilistic AI School 2022

Teaching and mentoring
Teaching assistance

Year	Description	Location	Duration
2021	Natural Language Processing	Helsinki, Finland	2 months

Mentoring
- I mentored the Aalto-Helsinki iGEM team in summer 2021. iGEM is an annual world-wide synthetic biology competition.
- I have taken part in the Google Summer of Code as a mentor for Apertium machine translation platform in 2019. This involves mentoring and directing students working on three-month projects related to language technology over the summer.
- I have also taken part in the Google Code-in as a mentor for Apertium in 2018 and 2019. This involves mentoring and directing school students working on various tasks related to language technology.

Other activities
- "Poetry with AI" exhibit at the Heureka science museum in Helsinki, Finland, 2022.
- Sakha language representative at Common Voice—crowdsourcing project started by Mozilla to create a free database for speech recognition software, 2021-2022.