ALEKSANDR PEREVALOV

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Birthplace: Kirov, Russia ⋄ Birthdate: June 9th

Current location: 06366, Germany ⋄ GitHub: `https://github.com/Perevalov`

EDUCATION

Anhalt University of Applied Sciences, Germany	*September 2019 - September 2020*
Master of Data Science (double degree)	GPA: 1.0 (max. 1.0)
Perm State Technical University, Russia	*September 2018 - September 2020*
Master in Software Engineering	GPA: 5 (max. 5)
Perm State Technical University, Russia	*September 2014 - September 2018*
Bachelor in Software Engineering	GPA: 4.73 (max. 5)

CAREER OBJECTIVE

To work on the next generation Information Retrieval & Semantic Search applications as a researcher with possibility in future to be a research group leader. Preferable application focus: innovative solutions for industry and government.

FUNDED PROJECTS

Language Agnostic Semantic Search driven by Knowledge Graphs *Project Lead*
This is a 2-year research project in cooperation with the University of Paderborn, Springer Nature, and Software Campus. The aim is focused on developing efficient and language-agnostic methods for semantic search over knowledge graphs. Funded by BMBF (100,000 EUR).

TECH SKILLS (MOST USED STAY FIRST)

OS	Linux, Windows
Languages	Python, SPARQL, JavaScript, SQL
DevOps	Docker, Nginx, MLFlow, W&B, Gunicorn
Frameworks & Libs	FastAPI, ReactJS, Flask // Pandas, NumPy // Tensorflow, NLTK, Spacy
DBMS	Stardog, Virtuoso, PostgreSQL, MongoDB, MySQL
Tools	Apache Airflow, Latex (Overleaf)

WORK EXPERIENCE

Leipzig University of Applied Sciences, Leipzig, Germany   March 2022 – Present
Research Assistant

Developing Question Answering components and tools for the Chatbot infrastructure of the ITZBund within a research project "Question-Answering-Komponenten zur Erweiterung des ChatBot-Frameworks (QA4CB)".

Anhalt University of Applied Sciences, Köthen, Germany   August 2020 – Present
Research Assistant (until March 2022) and PhD student

Teaching & Supervision: "Question Answering and Chatbots" course. Working on PhD thesis: "Methods to enhance the accessibility of question-answering systems" in cooperation with Paderborn University.

Foresight LLC, Perm, Russia   March 2018 – August 2020
Software Developer

Developing core functionality of a BPM system in accordance with the BPMN 2.0 notation. The users of the system are large Russian Oil & Gas companies and government ministries. Technologies: C++, SQL, Linux, Azure DevOps, Git.

LANGUAGES

English   Full professional proficiency (B2)
German   Intermediate (B1/B2)
Russian   Native speaker

SELECTED PUBLICATIONS

1. Aleksandr Perevalov, Andreas Both, Dennis Diefenbach, and Axel-Cyrille Ngonga Ngomo. Can machine translation be a reasonable alternative for multilingual question answering systems over knowledge graphs? In *Proceedings of the Web Conference*, 2022

2. Aleksandr Perevalov, Dennis Diefenbach, Ricardo Usbeck, and Andreas Both. QALD-9-plus: A multilingual dataset for question answering over DBpedia and Wikidata translated by native speakers. In *Proceedings of the 16th IEEE International Conference on Semantic Computing (ICSC)*, 2022

3. Andreas Both, Paul Heinze, Aleksandr Perevalov, Johannes Richard Bartsch, Rostislav Iudin, Johannes Rudolf Herkner, Tim Schrader, Jonas Wunsch, René Gürth, and Ann Kristin Falkenhain. Quality assurance of a german COVID-19 question answering systems using component-based microbenchmarking. In *Proceedings of the Fifteenth ACM International Conference on Web Search and Data Mining*, WSDM '22, page 15611564, New York, NY, USA, 2022. Association for Computing Machinery

4. Aleksandr Gashkov, Aleksandr Perevalov, Maria Eltsova, and Andreas Both. Improving question answering quality through language feature-based sparql query candidate validation. In *The Semantic Web*, pages 217–235, Cham, 2022. Springer International Publishing

5. Aleksandr Perevalov, Xi Yan, Liubov Kovriguina, Longquan Jiang, Andreas Both, and Ricardo Usbeck. Knowledge graph question answering leaderboard: A community resource to prevent a replication crisis, 2022

6. Aleksandr Perevalov and Andreas Both. Augmentation-based answer type classification of the SMART dataset. In *Proceedings of the SeMantic AnsweR Type prediction task (SMART) at ISWC 2020, November 5th, 2020*, volume 2774, pages 1–9. CEUR-WS.org, 2020

7. Aleksandr Perevalov and Andreas Both. Improving answer type classification quality through combined question answering datasets. In *International Conference on Knowledge Science, Engineering and Management*, pages 191–204. Springer, 2021

SUPERVISION

(2024) Supervisor of the Bachelor Thesis "The Influence of Machine Translation on the Response Quality of Multilingual KGQA Systems" by P. Heinze (successfully defended).

(2023) Mentor in the Google Summer of Code project DBpedia eXplainable Chatbot (DBpedia XChat) by Muskan Kothari.

(2023) Supervisor of the Master Thesis "Eine Studie zu Relation Detection und dessen Qualitätsverbesserung für Knowledge Graph Questions Answering" by A. Graap (successfully defended).

(2022) Mentor in the Google Summer of Code project "Extending the WikidataComplete plugin for enabling data donations, recommendations, and gamification" by Lalit Suthar.

(2021) Supervisor of the Master Thesis "Comparison of lexical features between human-human and human-chatbot interaction" by A. Vysokov (successfully defended).

(2021) Mentor in the Google Summer of Code project "Modular DBpedia Chatbot" by J. Desai.

(2021) Mentor in the Google Summer of Code project "Gamified Knowledge Base Completion Plugin for Wikibase/Wikidata" by D. Khanna.

FURTHER EDUCATION

(2023/2024) Software Campus program participant (leadership, agile development, diversity, and social skills).

(2023) Participant: "Designing and Facilitating Learning Spaces: Part 2", Kaospilot, Aarhus, Denmark.

(2023) Course certificate "Psycholinguistics"

(2022/2023) Course participation "Academic Writing in English (B1/B2)"

(2021) Course certificate "Improving Deep Neural Networks: Hyperparameter Tuning, Regularization and Optimization"

(2021) Course certificate "Web of Data"

(2021) Participant: "Designing and Facilitating Learning Spaces: Part 1", Kaospilot, Aarhus, Denmark.

(2020) Course certificate "Neural Networks and Deep Learning".

(2018) Course certificate "Introduction to Machine Learning".

ACHIEVEMENTS AND PRIZES

(2023) Science Slam winner at the Software Campus summit, Karlsruhe, Germany.

(2020) 3rd place in SeMantic AnsweR Type prediction task within ISWC 2020.

(2020) Bronze medal (top 9%) on Kaggle.com "Jigsaw Multilingual Toxic Comment Classification" competition

(2018) Best paper award in the annual Perm State Technical University's conference with the work on improvement of CMU Sphinx system's speech recognition quality.

(2019) TOP-9 in international data analysis competition Data Mining Cup 2019.

(2018) Participation in the poster session of the AINL conference with a talk on a dialogue system for a university enrollees.

(2018) TOP10 in the Machine Learning competition (Russian Artificial Intelligence forum): solving production time prediction task based on data from NLMK group.

(2018) Participation in the Machine Learning competition by Gazprom (Prediction of oil production rate).

INTERVIEWS & TALKS

(2023) LASS KG research project introduction – interview for the Holtzbrinck (owner of Springer Nature and Digital Science).

(2022) Paper presentation at the ESWC 2022, Crete, Greece.

(2021) "AI is not magic" – interview for our research project partner ITZBund (in German).

TEACHING

(Fall 2023/2024) Practical exercises of the course "AI for Game Development" in the Bachelor program "Computer Science and Media" (HS Anhalt, in German)

(Spring 2023) Practical exercises of the course "AI for Game Development" in the Bachelor program "Computer Science and Media" (HS Anhalt, in German)

(Spring 2023) Practical exercises of the course "Web Engineering" in the Bachelor program "Computer Science" (HTWK Leipzig, in German)

(Fall 2021/2022) Practical exercises of the course "Question Answering & Chatbots" in the Master program "Data Science" (HS Anhalt, in English)

(Fall 2020/2021) Practical exercises of the course "Question Answering & Chatbots" in the Master program "Data Science" (HS Anhalt, in English)

EXTRAS

Sports: I teach kickboxing for beginners, ride a snowboard, and previously did go-karting.

Creativity: I film and edit videos (mostly – personal VLOGS).

During Summer 2017, I participated in the Work & Travel USA program.