# ALEKSANDR PEREVALOV

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Birthplace: Kirov, Russia & Birthdate: June, 1996

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 in the field of Web Engineering as a research fellow with possibility in future to be a research group leader with a focus on creating innovative solutions for industry and government.

# PROJECTS DURING STUDIES

#### Cerence Complex QA system Software Developer

Designing the software from the scratch. Implementing knowledge-based Chatbot that capable to answer non-trivial questions. Deploying the application.

# Polyclinica.org – Healthcare Ecosystem Project Lead/Developer

Project managing: creating technical requirements, roadmaps, sprint planning. Developing core features of the Virtual Private Medical Assistant (Chatbot). Deploying the application.

## TECH SKILLS (MOST USED STAY FIRST)

OS Linux, Windows

Languages Python, SPARQL, JavaScript, SQL, C++

**DevOps** Docker, Nginx, MLFlow, Gunicorn

Frameworks & Libs FastAPI, ReactJS, Flask // Pandas, NumPy // Tensorflow, NLTK, Spacy DBMS Stardog, PostgreSQL, MongoDB, MySQL, Cassandra, Redis, Neo4j, Oracle

VCS & Tools Git, Latex (Overleaf)

### WORK EXPERIENCE

# 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.

## Anhalt University of Applied Sciences, Koethen, Germany

August 2020 – Present

Research Assistant (until March 2022) and PhD student

Research activities in the field of Question Answering and Web Engineering. Teaching & Supervision in Question Answering and Chatbots course. Developing PhD thesis: "Methods to enhance the accessibility of question-answering systems" in cooperation with Paderborn University.

Research Assistant

Developing innovative components and tools for chatbot infrastructure of the ITZBund within a research project.

#### **LANGUAGES**

Russian Native language

English Full professional proficiency (B2/C1)

**German** Intermediate (A2/B1)

#### SELECTED PUBLICATIONS

- 1. 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
- 2. 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
- 3. 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
- 4. 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
- 5. 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
- 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
- 8. Aleksandr Perevalov, Daniil Kurushin, Rustam Faizrakhmanov, and Farida Khabibrakhmanova. Question embeddings based on shannon entropy. *Applied Innovations in IT*, 2019

### **SUPERVISION**

- (2021) Supervisor of the Master Thesis "Comparison of lexical features between human-human and human-chatbot interaction" by A. Vysokov (successfully defended).
- (2021) Mentor at the Google Summer of Code project "Modular DBpedia Chatbot" by J. Desai.
- (2021) Mentor at the Google Summer of Code project "Gamified Knowledge Base Completion Plugin for Wikibase/Wikidata" by D. Khanna.

#### ACHIEVEMENTS

- (2016) Participation in the University conference with research about Pulse Wave Analysis.
- (2018) 1st prize in the University conference with research about improvement of speech recognition quality of CMU Sphinx system.
- (2018) Course certificate "Introduction to Machine Learning" (Yandex and HSE).
- (2018) TOP10 in Machine Learning competition (Russian Artificial Intelligence forum) with solving production time prediction task based on data from NLMK corporation.
- (2018) Participation in the Machine Learning competition by Gazprom (Prediction of oil production rate for further 6 months).
- (2018) Participation in the AINL international conference poster session with talk about goal-oriented dialogue systems.
- (2019) TOP-9 in international data analysis competition Data Mining Cup 2019.
- (2020) Bronze medal (top 9%) on Kaggle.com "Jigsaw Multilingual Toxic Comment Classification" competition
- (2020) Master's Thesis: "Improving answer type classification quality through combined question answering datasets". Supervisor: Prof. Dr. Andreas Both and Assoc. Prof. Daniil Kurushin.
- (2020) Course certificate "Neural Networks and Deep Learning" (deeplearning.ai).
- (2020) 3rd place at SeMantic Answer Type prediction task within ISWC 2020.
- (2021) Participant in the masterclass: "The Art and Craft of Designing and Facilitating Learning Spaces", Aarhus, Denmark.
- (2021) Course certificate "Web of Data"
- (2021) Course certificate "Improving Deep Neural Networks: Hyperparameter Tuning, Regularization and Optimization"

#### **TEACHING**

(WiSe 2020/2021) Practical exercises of the course "Linked Data & Semantic Web" / "Question Answering & Chatbots" in the Master program "Data Science"

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## **EXTRAS**

Work & Travel USA 2017 participant;

I do snowboarding and previously did motorsports (go-karting);

I love making and editing videos.