Kristýna Onderková

Experience

2024 - now   **PhD student**, *Institute of Formal and Applied Linguistics, Charles university*,
Investigating inference for advanced data to text generation with Large Language Models.

2023 - 2024   **freelance NLP Engineer**, *Keboola*,
Developed an AI agent assistant within LangChain framework with text-to-SQL, SQL explanation, and Keboola's components recommendation capabilities, etc.

2023 - 2024   **freelance NLP Engineer**, *Geneea Analytics*,
Contributed to genAI projects and co-authored Geneea's AI Spotlight newsletter.

2020 - 2022   **Data Scientist**, *Geneea Analytics*,
Developed rule-based system for generating weather forecasts and election news reports. Trained machine learning categorization models and engineered data pipelines. Enhanced our NLP product, and managed some client projects.

2016 - 2020   **Laboratory Specialist**, *Institute of Physics of the Czech Academy of Sciences*,
Department of Magnetic Measurements and Materials,
Operated advanced scientific instruments (SEM, XRF, magnetometers, etc.). Conducted in-depth analysis on collected data. Managed 3D printing laboratory.

Publications

2023   **Exploring Abductive Reasoning in Language Models for Data-to-Text Generation**,
K. Onderková and M. Nickles, DOI:10.1109/AICS60730.2023.10470804,
2023 31st Irish Conference on Artificial Intelligence and Cognitive Science (AICS)

Education

2024 - now   **Phd studies:** Computational Linguistics,
Institute of Formal and Applied Linguistics, MFF UK,
Topic: *Textual inference in natural language generation*

2022 - 2023   **Master in Computer Science:** Data Analytics,
University of Galway, School of Computer Science,
Thesis: *Prompting Language Models for Abductive Reasoning Tasks*

2017 - 2020   **Master in Physics:** Physics of Surfaces and Ionized Media,
Charles University in Prague, Faculty of Mathematics and Physics,
Thesis: *Martensite microstructures in thin films and monocrystals of Heusler alloys NiMnGa*

Computer skills

Programming   Python (numpy, pandas, scikit-learn, Keras, TensorFlow, etc.), R, Kotlin, Octave
Others   Bash, Git, SQL, SPARQL, Airflow, LaTeX, regular expressions, CAD software, etc.

Languages

Czech   native
English   C1 (Advanced)

Prague – Czech republic