Ferdinand Schlatt

Curriculum Vitae

Qualifications

2020–Present **PhD Student**, *Friedrich-Schiller-Universität Jena*
Supervision by Prof. Dr. Matthias Hagen

2017–2020 **Master of Science**, *Bielefeld University*, *Grade – 1.1*
Intelligent Systems

2014–2017 **Bachelor of Science**, *Osnabrück University*, *Grade – 1.7*
Cognitive Science

Employment History

2022–Present **Researcher**, *Friedrich-Schiller Universtiät Jena*, Jena
Improving the efficiency and effectiveness of transformer-based language models for document ranking and retrieval [3, 4, 5, 6].

2021–2022 **Researcher**, *Martin-Luther-University Halle–Wittenberg*, Halle
Investigating the extraction of health-related information from biomedical publications and web pages with a particular focus on causal information [1, 2].

2020 **Machine Learning Engineer**, *Prof. Dr. Dieter Bettin*, Papenburg
Development of pipeline for extracting, evaluating, and aggregating evidence quality of biomedical publications to advance the automation of systematic reviews.

2019–2020 **Machine Learning Engineer**, *matchmetrics GmbH*, Bielefeld
Development of models for the prediction of soccer player performance across different seasons and leagues.

2018–2019 **Student Assistant**, *Bielefeld University (Technical Faculty)*, Bielefeld
Tutor for Introduction to Data Mining. Supervision of weekly exercises and lecture support.

2018–2019 **Student Assistant**, *CITEC (CEEGE Project, Prof. Schack)*, Bielefeld
Support for eye-tracking chess study. Development of API and analysis algorithms for combining data from an electronic chess board and eye tracker.

Publications

[1] Ferdinand Schlatt, Dieter Bettin, Matthias Hagen, Benno Stein, and Martin Potthast. Mining Health-related Cause-Effect Statements with High Precision at Large Scale. In *Proceedings of COLING 2022*, pages 1925–1936. International Committee on Computational Linguistics, October 2022. URL `https://aclanthology.org/2022.coling-1.167`.

[2] Ferdinand Schlatt. Efficiently Scoring the Health-relatedness of Web Pages. In *Proceedings of the First International Workshop on Open Web Search (WOWS 2024)*, pages 14–22. CEUR Workshop Proceedings, March 2024. URL `https://ceur-ws.org/Vol-3689/WOWS_2024_paper_2.pdf`.

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[3] Ferdinand Schlatt, Maik Fröbe, and Matthias Hagen. Investigating the Effects of Sparse Attention on Cross-Encoders. In *Proceedings of ECIR 2024*, volume 14608 of *Lecture Notes in Computer Science*, pages 173–190, Berlin Heidelberg New York, March 2024. Springer. URL https://link.springer.com/chapter/10.1007/978-3-031-56027-9_11.

[4] Ferdinand Schlatt, Maik Fröbe, and Matthias Hagen. Lightning IR: Straightforward Fine-tuning and Inference of Transformer-based Language Models for Information Retrieval. In *Proceedings of WSDM 2025*, pages 1048–1051. ACM, March 2025.

[5] Ferdinand Schlatt, Maik Fröbe, Harrisen Scells, Shengyao Zhuang, Bevan Koopman, Guido Zuccon, Benno Stein, Martin Potthast, and Matthias Hagen. Set-Encoder: Permutation-Invariant Inter-Passage Attention for Listwise Passage Re-Ranking with Cross-Encoders. In *Proceedings of ECIR 2025*, Lecture Notes in Computer Science. Springer, April 2025.

[6] Ferdinand Schlatt, Maik Fröbe, Harrisen Scells, Shengyao Zhuang, Bevan Koopman, Guido Zuccon, Benno Stein, Martin Potthast, and Matthias Hagen. Rank-DistiLLM: Closing the Effectiveness Gap Between Cross-Encoders and LLMs for Passage Re-ranking. In *Proceedings of ECIR 2025*, Lecture Notes in Computer Science. Springer, April 2025.

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