

Rolf Jagerman

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Education

- 2016–2020 **PhD Computer Science**, *University of Amsterdam*.
Thesis: Efficient, Safe and Adaptive Learning from User Interactions.
- 2014–2016 **MSc Computer Science**, *ETH Zürich*, 5.52/6.0.
Thesis: Web-scale Topic Models in Spark: an Asynchronous Parameter Server.
- 2011–2014 **BSc Computer Science**, *TU Delft*, 8.7/10.0 (Cum Laude).
Thesis: Android Tor Tribler Tunneling (AT3).
Successfully completed the honours programme.

Professional Experience

- 2022–present **Senior Software Engineer**, *Google*.
Software Engineer at Google Research.
- 2020–2022 **Software Engineer**, *Google*.
Software Engineer at Google Research.
- 2020 **Machine Learning Intern**, *Apple*.
Winter internship at Apple.
- 2019 **Software Engineering Intern**, *Google*.
Summer research internship at Google.
- 2015 **Research assistant**, *Data Analytics Lab*, *ETH Zürich*.
Developed a large-scale distributed implementation of the Latent Dirichlet Allocation (LDA) model in Spark to run on a 20+ TB dataset.
- 2008–2020 **Founder**, *Contended*.
Freelance web design and software development for various companies in the Netherlands.

Publications

- 2023 **R. Jagerman**, H. Zhuang, Z. Qin, X. Wang and M. Bendersky. Query Expansion by Prompting Large Language Models. *arXiv*. arXiv, 2023. [PDF]
- 2022 A. Bai, **R. Jagerman**, Z. Qin, P. Kar, B. Lin, X. Wang, M. Bendersky and M. Najork. Regression Compatible Listwise Objectives for Calibrated Ranking. *arXiv*. arXiv, 2022. [PDF]
- H. Zhuang, Z. Qin, **R. Jagerman**, K. Hui, J. Ma, J. Lu, J. Ni, X. Wang and M. Bendersky. RankT5: Fine-Tuning T5 for Text Ranking with Ranking Losses. *arXiv*. arXiv, 2022. [PDF]

- R. Jagerman**, X. Wang, H. Zhuang, Z. Qin, M. Bendersky and M. Najork. Rax: Composable Learning-to-Rank using JAX. *Proceedings of the 28th ACM SIGKDD Conference on Knowledge Discovery and Data Mining*. ACM, 2022. [\[PDF\]](#)
- R. Jagerman**, Z. Qin, X. Wang, M. Bendersky and M. Najork. On Optimizing Top-K Metrics for Neural Ranking Models. *Proceedings of the 45th ACM SIGIR Conference on Research and Development in Information Retrieval*. ACM, 2022. [\[PDF\]](#)
- 2021 Z. Qin, H. Zhuang, **R. Jagerman**, X. Qian, P. Hu, C. Chen, X. Wang, M. Bendersky and M. Najork. Bootstrapping Recommendations at Chrome Web Store. *Proceedings of the 27th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining*. ACM, 2021. [\[PDF\]](#)
- R. Jagerman**, W. Kong, R. Pasumarthi, Z. Qin, M. Bendersky and M. Najork. Improving Cloud Storage Search with User Activity. *Proceedings of the 14th ACM International Conference on Web Search and Data Mining*. ACM, 2021. [\[PDF\]](#)
- 2020 **R. Jagerman**. Efficient, Safe and Adaptive Learning from User Interactions. *PhD Thesis*, 2020. [\[PDF\]](#)
- R. Jagerman** and M. de Rijke. Accelerated Convergence for Counterfactual Learning to Rank. *Proceedings of the 43rd ACM International Conference on Research and Development in Information Retrieval*. ACM, 2020. [\[PDF\]](#)
- R. Jagerman**, I. Markov and M. de Rijke. Safe Exploration for Optimizing Contextual Bandits. *Transactions on Information Systems*. ACM, 2020. [\[PDF\]](#)
- 2019 **R. Jagerman**, H. Oosterhuis and M. de Rijke. To Model or to Intervene: A Comparison of Counterfactual and Online Learning to Rank from User Interactions. *Proceedings of the 42nd ACM International Conference on Research and Development in Information Retrieval*. ACM, 2019. [\[PDF\]](#)
- R. Jagerman**, I. Markov and M. de Rijke. When People Change their Mind: Off-Policy Evaluation in Non-stationary Recommendation Environments. *Proceedings of the 12th ACM International Conference on Web Search and Data Mining*. ACM, 2019. [\[PDF\]](#)
- 2018 **R. Jagerman**, K. Balog and M. de Rijke. OpenSearch: Lessons Learned from an Online Evaluation Campaign. *Journal of Data and Information Quality*. ACM, 2018. [\[PDF\]](#)
- 2017 **R. Jagerman**, K. Balog, P. Schaer, J. Schaible, N. Tavakolpoursaleh and M. de Rijke. Overview of TREC OpenSearch 2017. *Proceedings of the 26th Text REtrieval Conference*, 2017. [\[PDF\]](#)
- R. Jagerman**, H. Oosterhuis and M. de Rijke. Query-level Ranker Specialization. *1st International Workshop on LEARning Next gEneration Rankers (LEARNER)*, 2017. [\[PDF\]](#)
- R. Jagerman**, J. Kiseleva and M. de Rijke. Modeling Label Ambiguity for Neural List-Wise Learning to Rank. *2nd International Workshop on Neural Information Retrieval (Neu-IR)*, 2017. [\[PDF\]](#)

R. Jagerman, C. Eickhoff and M. de Rijke. Computing Web-scale Topic Models using an Asynchronous Parameter Server. *Proceedings of the 40th International ACM SIGIR Conference on Research and Development in Information Retrieval*. ACM, 2017. [\[PDF\]](#)

Skills

Languages Dutch (native speaker), English (fluent)
Programming Python, Scala, Java, C++
Frameworks Numpy, Scipy, Numba, Scikit-Learn, Tensorflow, PyTorch, Akka, Spark
& Tools

Open Source Contributions

[Rax](#) Composable Learning-to-Rank using JAX.
[PyTorchLTR](#) Learning-to-Rank in PyTorch.
[Glint](#) Spark-compatible parameter server.
[Shoelace](#) Neural List-wise Learning-to-Rank library for Chainer.
[Murmur3.jl](#) High performance Julia implementation of Murmur3 hashing.
[Django](#) Bug fixes in the administration panel UI JavaScript.
[Tribler](#) Bug fixes for software stability on Android.