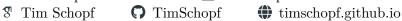
Tim Schopf

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Professional Experience

Jan. 2025 – Present

ScaDS.AI & Dresden University of Technology

Postdoctoral Researcher

Conducting research on "evidence-based text generation with large language models (LLMs)", "detection and correction of LLM hallucinations", and "LLM agents for scientific discovery"

Sept. 2020 – Aug. 2024

TUM Chair of Software Engineering for Business Information Systems Research Associate

Led the "NLP-KG" project, which used LLMs, retrieval augmented generation

(RAG), and a KG to enhance scientific document search

Co-led the "CreateData4AI" project, which aimed to create an end-to-end pipeline for structured data generation from unstructured text corpora

Co-organized "hackaTUM", the official hackathon of the Department of Computer Science at the Technical University of Munich

Taught various software engineering and natural language processing courses in addition to supervision of thesis students

Nov. 2019 – Apr. 2020

MHP Management and IT Consulting

Master's Thesis Student

Researching defenses against adversarial attacks on deep neural networks for computer vision in the automotive industry

Oct. 2018 - Mar. 2019

Mercedes-Benz Group

Data Science Intern

Responsible for identifying dealer fraud using anomaly detection

Feb. 2018 – Sept. 2018

KIT Institute for Technology and Management in Construction

Student Research Assistant

Responsible for CAD modeling of 3D prints and Wiki database updates

Education

Jan. 2021 – Present

Technical University of Munich (TUM)

Ph.D. Candidate in Computer Science

Research Areas: Natural Language Processing and Knowledge Graphs

Oct. 2017 – Aug. 2020

Karlsruhe Institute of Technology (KIT)

Master of Science in Information Engineering and Management Area of Specialization: Machine Learning and Data Science

Oct. 2012 - Sept. 2017

Universities of Stuttgart & Hohenheim

Bachelor of Science in Information Systems

Area of Specialization: IT in Business Enterprises

Selected Publications

- T. Schopf, J. Vladika, M. Färber, and F. Matthes, "Natural language inference fine-tuning for scientific hallucination detection," in *Proceedings of the Fifth Workshop on Scholarly Document Processing@ACL (SDP@ACL 2025)*, A. Singh, Ed., Venice, Austria: Association for Computational Linguistics, Aug. 2025, pp. 344–352, ISBN: 979-8-89176-265-7. URL: https://aclanthology.org/2025.sdp-1.33.
- S. Meisenbacher, **T. Schopf**, W. Yan, P. Holl, and F. Matthes, "An improved method for class-specific keyword extraction: A case study in the German business registry," in *Proceedings of the 20th Conference on Natural Language Processing (KONVENS 2024)*, P. H. Luz de Araujo, A. Baumann, D. Gromann, B. Krenn, B. Roth, and M. Wiegand, Eds., Vienna, Austria: Association for Computational Linguistics, Sep. 2024, pp. 159–165. **O** URL: https://aclanthology.org/2024.konvens-main.18.
- T. Schopf and F. Matthes, "NLP-KG: A system for exploratory search of scientific literature in natural language processing," in *Proceedings of the 62nd Annual Meeting of the Association for Computational Linguistics (Volume 3: System Demonstrations)*, Y. Cao, Y. Feng, and D. Xiong, Eds., Bangkok, Thailand: Association for Computational Linguistics, Aug. 2024, pp. 127–135. URL: https://aclanthology.org/2024.acl-demos.13.
- T. Schopf, D. Braun, and F. Matthes, "Evaluating unsupervised text classification: Zero-shot and similarity-based approaches," in *Proceedings of the 2022 6th International Conference on Natural Language Processing and Information Retrieval*, ser. NLPIR '22, Bangkok, Thailand: Association for Computing Machinery, 2023, pp. 6–15, ISBN: 9781450397629. © DOI: 10.1145/3582768.3582795.
- T. Schopf, E. Gerber, M. Ostendorff, and F. Matthes, "AspectCSE: Sentence embeddings for aspect-based semantic textual similarity using contrastive learning and structured knowledge," in *Proceedings of the 14th International Conference on Recent Advances in Natural Language Processing*, R. Mitkov and G. Angelova, Eds., Varna, Bulgaria: INCOMA Ltd., Shoumen, Bulgaria, Sep. 2023, pp. 1054–1065. © URL: https://aclanthology.org/2023.ranlp-1.113.

Skills & Certifications

Computer Languages Python, R, C++, Java, JavaScript, TypeScript

ML/DL Frameworks & Libraries PyTorch, LangChain, Hugging Face, NumPy, SciPy, Pandas, scikit-learn, spaCy, NLTK, Gensim, Matplotlib, Seaborn

rearn, spacy, INLIA, Gensini, Matplotilo, Seaborn

Other Technologies & Tools FastAPI, SQL, MongoDB, Weaviate, Pinecone, Neo4j, Docker, HTML/CSS, ŁTĘX, Git, Next.js

Research Academic research and teaching in the fields of Natural Language Processing, Knowledge Graphs, and Web Application Engineering

Personal Personable, Strong Work Ethic, Organization, Excellent Communication Skills