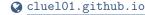
Christian Lülf

MSc.











As a PhD candidate at the University of Münster, I am on track to complete my degree by Summer 2024. My passion for deep learning and large-scale computing drives my research, which is focused on their applications in search engines. I am eager to embrace new challenges and seek opportunities to expand my expertise in these fields.

EDUCATION

PhD in Information Systems, University of Münster

11/2020 — Present

- Research Group: Machine Learning and Data Engineering lab (Advisor: Prof. Fabian Gieseke)
- Thesis: Advancing Large-Scale Data Retrieval: A Co-Design Approach of Machine Learning and Indexing

Master of Science in Information Systems, University of Münster

04/2018 - 08/2020

- Thesis: Categorization of Graph Neural Networks in the Area of Organic Chemistry
- Grade: 1.8 (best: 1.0, worst: 5.0)

Exchange Semester: Master of Science in Computer Science, University of Sydney

08/2019 - 12/2019

Courses: Machine Learning, Data Mining, Predictive Analytics, Cyber Security

Bachelor of Science in Information Systems, University of Applied Sciences Weserbergland

08/2014 - 07/2017

- Thesis: Evaluation of a Continuous Deployment Procedure with Kubernetes in the Data Center of Atruvia AG
- Grade: 1.3 (best: 1.0, worst: 5.0)

Higher Education Entrance Qualification, Wilhelm-Hittorf-Gymnasium Münster

08/2006 - 07/2014

Work Experience

Research Assistant University of Münster

11/2020 — Present

Münster, Germany

- Conducted extensive research resulting into multiple publications.
- Delivered lectures and supervised bachelor/master theses.

Linux System Engineer

Atruvia AG

08/2017 - 10/2020

Münster, Germany

- Managed systems in a data center serving over 1,000 banks in the D-A-CH region.
- Led projects to establish a container platform for banking applications.

In European Symposium on Artificial Neural Networks, ESANN.

Integrated University Program

Atruvia AG

08/2014 - 07/2017

Münster, Germany

06/2023

- Completed a combined university degree and vocational training at Atruvia AG.
- Graduated with highest distinction in both academic and vocational components.

SELECTED PUBLICATIONS

Lülf, C., Martins, D., Vaz Salles, M., Zhou, Y., Gieseke, F. CLIP-Branches: Interactive Fine-Tuning for	
Text-Image Retrieval. In Proceedings of the International ACM SIGIR Conference.	07/2024
Lülf, C., Martins, D., Vaz Salles, M., Zhou, Y., Gieseke, F. Fast Search-By-Classification for Large-Scale	
Databases Using Index-Aware Decision Trees and Random Forests. In Proceedings of the VLDB Endowment.	08/2023
Lülf, C., Martins, D., Vaz Salles, M., Zhou, Y., Gieseke, F. RapidEarth: A Search Engine for Large-Scale	
Geospatial Imagery. In Proceedings of the ACM SIGSPATIAL.	08/2023
Martins, D., Lülf, C., Gieseke, F. End-to-end Neural Network Training for Hyperbox-Based Classification.	

SKILLS

Programming	Python, Bash, Java, JavaScript, R, SQL, C, C++
Tools & Software	Linux, Docker, Kubernetes, Numpy/Pandas, PyTorch, Tensorflow, Git, LATEX, GDAL
Communication	German (native), English (fluent, TOEFL iBT 106 points)

CERTIFICATIONS & AWARDS

Best Demo Award at ACM SIGSPATIAL 2023	11/2023
Scholarship "PROMOS" of the German Academic Exchange Service	07/2019
Top 10% of the of the graduating class at University of Applied Sciences Weserbergland	07/2017
Scholarship "Deutschlandstipendium" (Maximum funding rate: 1.45 % of all students)	09/2016
Certified Computer Science Expert by the Chamber of Industry and Commerce (with honors)	06/2016

TALKS

ACM SIGSPATIAL'23 International Conference on Advances in Geographic Information Systems, Hamburg	11/2023
ERCIS Lunchtime Seminar, Münster	10/2023
VLDB'23 International Conference on Very Large Data Bases, Vancouver	08/2023
TDWI Roundtable, Münster	05/2023
\mathbf{MLSS}^N Summer School, Krakòw	06/2022

TEACHING EXPERIENCE & UNIVERSITY SERVICES

Teaching Assistant

- Facilitated tutorials and lectures, along with grading assignments, for courses within our research group.
- Courses: Data Analytics, Management Information Systems & Data Warehousing, Data Integration

Administrator of Cloud Infrastructure

- Led the deployment and management of an advanced cloud infrastructure with GPU support, enhancing student and research capabilities.
- Technologies: Kubernetes, Docker, CephFS, PyTorch.

Thesis Supervisor

- Successfully guided over ten bachelor's and master's theses, contributing to significant academic advancements in our research group.
- Topic Overview: Approximate nearest neighbor search, multi-task transformer learning in NLP, deep learning for tree canopy segmentation