# Leonard Traeger

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# EDUCATION

University of Maryland, Baltimore County (UMBC)

Ph.D. in Information Systems; currently candidate with GPA: 3.97/4

Cologne Technical University of Applied Sciences (THK)

M.Sc. in Computer Science / Information Systems; grade 1.2/5 equiv. GPA: 3.8/4 Macquarie University (MU)

Exchange semester in Information Systems; grades HD, HD, C equiv. GPA: 3.2/4

Cologne Technical University of Applied Sciences (THK)

B.Sc. in Business Information Systems; grade 1.7/5 equiv. GPA: 3.3/4

Baltimore, USA August. 2021 - Present Cologne, Germany Mar. 2019 - Apr. 2022 Sydney, Australia June. 2017 - Dec. 2017 Gummersbach, Germany Aug. 2015 - Feb. 2019

# Professional Experience

# Institute for Big Data Analytics at THK

Research Assistant

Cologne, Germany Oct. 2023 - Present

- Research on Semantics in Data Management: 1. Semantic Schema Denormalization for Table Matching 2. Structured-Aware Language Models for Tables (Collaboration with Utrecht University)
- Winter 2023-2025 Lecturer at University of Applied Sciences Dortmund and Art for Programming II Data Science with Python and R (Syllabus)

#### Information Systems Department at UMBC

Graduate Teaching and Research Assistant

Baltimore, USA Aug. 2022 - Present

- Spring 2024 Technology Catalyst Fund for commercialization of a Semantic Mapper for Application Integration
- Fall 2022 Guest lecture about Inteplato in Systems and Information Integration (IS722)
- Fall 2022, Spring 2023, Spring 2024, Fall 2024 Laboratories for Database Application Development (IS420 and IS620)

## IT Consultancy, German Military Bundeswehr (BWI GmbH)

Data Warehouse Application Consultant

Mar. 2019 - Jul. 2022

Bonn, Germany

- Developing data pipelines and dashboards for materials, missions, and unit resources on BW/4HANA (300k users)
- Designing role authorization concepts, testing routines, training materials, and stakeholder workshops

# Programming Skills

SQL, Python (numpy, pandas, pyplot, sns, sklearn, TensorFlow), R, Javascript, MATLAB, ABAP

#### AWARDS AND SERVICES

VLDB Summer School (2023) Best Poster at Cluj, Romania

DOAG (2022) industry conference speaker "Machine Learning and Data Integration" at Düsseldorf, Germany

Fulbright Germany graduate scholarship (2021) at UMBC

M.Sc. Digital sciences auditor for reaccreditation and examination (2019 - 2022) at THK

Förderverein Gummersbach studies abroad travel funds (2017) at MU

#### **PUBLICATIONS**

**Traeger, Leonard**; Behrend, Andreas; Karabatis, George. Collective Scoping: Streamlining Entity Sets Towards Efficient and Effective Entity Linkages. Springer Nature Computer Science Volume 6 (SNCS 2025). (DOI:10.1007/s42979-025-03734-7) (GitHub)

**Traeger, Leonard**; Behrend, Andreas; Karabatis, George. SEALM: Semantically Enriched Attributes with Language Models for Linkage Recommendation. 27th International Conference on Enterprise Information Systems (ICEIS 2025). (DOI:10.5220/0013217700003929) (GitHub)

Traeger, Leonard; Behrend, Andreas; Karabatis, George. Scoping: Towards Streamlined Entity Collections for Multi-Sourced Entity Resolution with Self-Supervised Agents". 26th International Conference on Enterprise Information Systems (ICEIS 2024). Best Paper Award (DOI:10.5220/0012607500003690) (GitHub)

**Traeger, Leonard**; Omar, Faraque. Autonomous Object Detection and Landing with Parrot Rolling Spider in Matlab Simulink". IEEE International Conference on Embedded Systems, Cyber-physical Systems & Applications (ESCS 2023). (DOI 10.1109/CSCE60160.2023.00160) (GitHub) (YouTube)

Traeger, Leonard; Behrend, Andreas; Karabatis, George. Inteplato: Generating Mappings of Heterogeneous Relational Schemas using Unsupervised Learning". IEEE International Conference on Computational Science and Computational Intelligence (CSCI 2022). (DOI:10.1109/CSCI58124.2022.00083) (GitHub)