

Curriculum Vitae

Constantin Kühne

Email | GitHub | LinkedIn | Google Scholar



Education

MSc Data Engineering (2023 - present)

Hasso Plattner Institute/ University of Potsdam

- Exchange semester at Eindhoven University of Technology (2025)
- Relevant Coursework: Generative AI Models, Deep Learning, Machine Learning for Image Analysis, Reinforcement Learning & Algorithm Discovery, Knowledge Engineering, Advanced Machine Learning Seminars

BSc Wirtschaftsinformatik/ Business Intelligence (2019 - 2023)

Hochschule der Bayerischen Wirtschaft

Research Experiences

Icewaff: A Configurable Data Stream Polluter (11/2024 - 04/2025)

Hasso Plattner Institute

- Research assistant role under Dr. Lisa Ehrlinger at the Information Systems chair of Prof. Dr. Felix Naumann
- Research and software development on a framework for data pollution via Apache Flink [Link]
- Evaluation of the effects of data errors on machine learning models

Beyond Balanced: Learning Static Search Trees with Tree-MDPs (10/2024 - 04/2025)

Hasso Plattner Institute

- Research seminar under Alexander Kastius at the chair for Artificial Intelligence and Sustainability of Prof. Dr. Ralf Herbrich
- Designed a reinforcement learning framework (Tree-MDP + A2C) to construct static binary search trees for database indexing
- Achieved up to 40% faster average lookup times on skewed query distributions vs. traditional binary search

TrueSkill/MLPs Beyond Gaussians (10/2024 - 03/2025)

Hasso Plattner Institute - Master's project under Prof. Dr. Ralf Herbrich - Research on more accurate factor graph inference via mixture models [Link]

Industry Experiences

System Engineer (03/2023 - 08/2023)

Infineon Technologies AG

- Implementation and establishment of a Customer Data Platform
- Analysis and value creation out of customer data

Dual Studies at the Analytics Department (09/2019 - 03/2023)

Infineon Technologies AG

- Development and operationalization of software solutions in the field of Data Science
- Creation of semantic search for technical documents via Elasticsearch and language models

Technical Skills

- Python (Advanced)
- SQL (Advanced)
- Java (Intermediate)
- PyTorch (Intermediate)
- Docker (Intermediate)
- Databricks (Intermediate)
- Elasticsearch (Intermediate)
- Tableau (Intermediate)
- Weights & Biases

Awards

- Deutschlandstipendium, 2023-2025

Publications

1. Christoph Schinninger et al. **Icewafi: A Configurable Data Stream Polluter**. 2025. <https://doi.org/10.48786/edbt.2025.64>

Languages

- German (C2), English (C1), French (A2)