Maximilian Dachtler

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EDUCATION

2025-present **Johannes Kepler Universität Linz** MSc Artificial Intelligence
- Area of specialization: Life Sciences

2021 - 2025 **Hochschule Karlsruhe – University of Applied Sciences** BSc Data Science
- GPA 1.4 (Germany)
- Relevant coursework: Natural Language Processing, Data Mining & Fundamentals of Machine Learning, Optimization, Modeling and Simulation
- Bachelor's thesis: Machine learning-based execution time prediction

2019 - 2021 **Ernst-Sigle-Gymnasium Kornwestheim** Abitur
- GPA 1.7 (Germany)

WORK EXPERIENCE

05/2025-09/2025 **Working student, Vector Informatik GmbH**
- Improved observability for LLM serving using Prometheus metrics and Grafana dashboards
- Evaluated and integrated Open WebUI into the existing Kubernetes cluster
- Evaluated MCP servers and OpenAPI tools for Open WebUI

09/2023 - 03/2024 **Mandatory Internship – Laser Cutting Process Optimization, TRUMPF GmbH + Co. KG**
- Developed optimization approaches using computer vision techniques
- Designed and implemented a Bayesian optimization strategy in cooperation with the Fraunhofer Institute
- Evaluated and benchmarked existing AI models for laser cutting processes

Academic Projects

11/2024-03/2025 **Bachelor's Thesis in cooperation with Vector Informatik GmbH**
- Topic: Machine Learning-based prediction of migration duration in the model-based development of E/E architectures
- Built a dataset to evaluate migration duration for PREEvision, a tool used in model-based systems engineering (Vector Informatik)
- Extracted relevant features and trained multiple machine learning models

2024 **Hybrid Energy Forecasting and Trading Competition**
- Developed probabilistic energy forecasting for a hybrid wind-solar power plant
- Trained and evaluated multiple model approaches, including classical machine learning and deep learning
- Submitted daily forecasts and compared results with real-world data

2024 **IoT Project – Occupancy prediction**
- Developed a machine learning model to estimate room occupancy based on CO_2 sensor data
- Worked with time-series sensor data for feature extraction and model training

SKILLS & INTERESTS

Languages	German (native), English (fluent)
Technology	Python, PyTorch, TensorFlow, NumPy, Pandas, SQL, Git, Kubernetes, LaTeX, Excel, Matplotlib
Interests	Running, Volleyball, Chess, Diving, Traveling