Lukas Müller

Frankfurt am Main, Germany | contact@lukasmueller.dev | GitHub | LinkedIn

Education

Bachelor of Science in Computer Science Oct. 2023 – Present
Technical University of Darmstadt *Darmstadt, HE*

- Current grade: 1.1 German scale (GPA: 3.9)
- Exchange semester: Aarhus University, Denmark, Jan. 2026 – Jun. 2026
- Elective courses: Robot Learning, Visual Computing, Markov Decision Theory, Machine Learning in Game Theory

Bachelor of Arts in Digital Business Management Oct. 2019 – Sep. 2022
Baden-Wuerttemberg Cooperative State University *Mannheim, BW*

- Final grade: 1.2 German scale (GPA: 3.8)
- Thesis: Conception of a Strategy to Increase Data Quality for a Predictive Analytics Application

Work Experience

Working Student Machine Learning & Data Engineering Aug. 2024 – Present
Compredict GmbH *Darmstadt, HE*

- Implemented a contrastive timestamp-embedding model in Keras and integrated it into a production Python package for time-series analysis and visualization
- Developed Python packages for data quality and data labeling for high-frequency time-series data, including core logic, tests, and documentation
- Built unit and integration tests for data pipelines in MWAA and FastAPI services to improve reliability of ML systems

Working Student Bioinformatics Research & Development Oct. 2022 – Sep. 2023
BioNTech SE *Mainz, RP*

- Developed a data pipeline transferring local research files to AWS (S3/Glue/Redshift) and making them accessible in a data warehouse
- Extended a bioinformatics feature pipeline used for downstream machine learning workflows

Cooperative Education Student Aug. 2019 – Sep. 2022
Fresenius Group *Bad Homburg, HE*

- Completed internship rotations in Project Management, Business Intelligence, and Process Mining

Projects

Cavitation Experiment Database (Team Project) Oct. 2025 – Mar. 2026
TU Darmstadt (Chair of Fluid Systems)

- Built a TimescaleDB database replacing HDF5/JSON-based experimental data storage with a unified schema
- Developed a documented Python API for ingestion and querying of experimental sensor and metadata
- Set up unit/integration tests and GitLab CI/CD for linting, testing, and documentation deployment
- Technologies: Python, PostgreSQL, TimescaleDB, GitLab CI/CD

MuJoPy Sep. 2025
Open Source (GitHub/PyPI)

- Built and published a Python package exposing MuJoCo models as robot graphs for ML workflows
- Implemented robot-graph feature extraction and a Pytest-based test suite
- Technologies: Python, MuJoCo, Pytest, PyPI

Large-Scale Robot Generation (Team Project) Apr. 2025 – Sep. 2025
Technical University of Darmstadt (Intelligent Autonomous Systems Group)

- Built an MPNN-based variational autoencoder learning latent representations of robot morphologies in MuJoCo
- Implemented training and evaluation workflows in PyTorch with experiment tracking in Weights & Biases
- Technologies: Python, PyTorch, MuJoCo, Weights & Biases

Skills

Programming: Python, SQL, C++, Java
Data Engineering & Backend: PostgreSQL, Apache Airflow/MWAA, FastAPI, AWS (Redshift/Glue/S3), Docker
Machine Learning: PyTorch, TensorFlow, Keras, Weights & Biases
Testing & Tooling: Pytest, GitLab CI/CD, Python packaging, Polars, Pandas
Languages: German (native), English (fluent), Spanish (basic)