

Sven Lüpke

✉ luepke@in.tum.de 📞 +49 151 64580471 📅 15.3.1999

🌐 sven-luepke.github.io [in sven-luepke](#) 🌐 sven-luepke



Experience

Data Scientist, Delicious Data

- Led the development of the internal foundational forecasting model from R&D to production, resulting in significant accuracy improvements on business critical days and eliminating the need for manual intervention
- Technologies: Transformers

since Mar 2025
Munich, Germany

Machine Learning Engineer - Working Student, Delicious Data

- Research and development on time series forecasting and demand estimation
- Technologies: Python, Pandas, PyTorch, MLflow, Azure AI, Deep Learning

Oct 2023 - Mar 2025
Munich, Germany

Graphics Software Engineer - Working Student, Infineon Technologies

- Developed a calibration tool for an automotive head-up display
- Technologies: C++, OpenCV, Qt, CMake

Apr 2023 - Oct 2023
Munich, Germany

Research Assistant, Technical University of Munich

- Developed a real-time path tracer and analyzed a neural denoiser at the chair for computer graphics and visualization
- Technologies: C++, Vulkan, Ray Tracing, Python, PyTorch, CUDA

Oct 2021 - Sept 2022
Munich, Germany

Software Developer - Working Student, Rubinstein & Schmiedel

- Built a real-time market data management system for AI driven trading systems
- Technologies: Python, Redis, PostgreSQL, REST, Websocket, Docker

Jan 2020 - Sept 2021
Munich, Germany

Tutor: Practical Course Realtime Graphics, Technical University of Munich

- Taught students the fundamentals of 3D computer graphics programming
- Technologies: C++, DirectX 11, HLSL

Apr 2019 - Sept 2019
Munich, Germany

Education

Master - Informatics, Technical University of Munich

- Specialized in Machine Learning - **Passed with Distinction**

Apr 2022 - July 2025

Master - Informatics: Games Engineering, Technical University of Munich

- Specialized in computer graphics and machine learning

Apr 2021 - Mar 2022

Bachelor - Informatics: Games Engineering, Technical University of Munich

- Thesis: Injection of Physically Based Volumetric Effects into The Witcher 3

Oct 2017 - Mar 2021

Skills

Programming

Python ●●●●●
C++ ●●●●○
HLSL ●●●●●
CUDA ●●●○○

Technologies

Machine Learning ●●●●●
Computer Graphics ●●●●●
Optimization ●●●○○
Databases ●●○○○

Languages

German ●●●●●
English ●●●●●
Czech ●●●○○


Publications

Physics-Informed Latent Diffusion for Multimodal Brain MRI Synthesis

Sven Lüpke, Yousef Yaganeh, Ehsan Adeli, Nassir Navab, Azade Farshad

Oct 2024

arxiv.org/abs/2409.13532 

- Presented at the [5th International Workshop on Multiscale Multimodal Medical Imaging](#) 
- Technologies: Python, PyTorch, Generative Models, Denoising Diffusion, Medical Imaging

Selected Projects

Generative Modeling for Inverse Molecular Design

Oct 2023 - June 2024

github.com 

- Interdisciplinary project at the chair for data-driven materials modeling at TUM
- Technologies: Python, PyTorch, Graph Neural Networks, Probabilistic Models

BlitzFX

Nov 2021 - Mar 2023

nexusmods.com 

- Graphics effect injector for The Witcher 3 downloaded by over 30,000 users
- Technologies: C++, HLSL, DirectX 11, Real-Time Rendering, Reverse Engineering

Roman Colosseum Reconstruction

Nov 2016 - Jul 2017

cgtrader.com 

- 3D model of Roman Colosseum inspired by old paintings and movies
- Technologies: Blender