Christian Döring

Curriculum Vitae

Education

Sept. 2011 - June 2019 **Abitur (A-Levels)**, *Gymnasium Bruckmühl*.

Oct. 2019 - Mar 2023 **B.Sc., Electrical and Computer Engineering**,
Technical University of Munich,
Thesis Title: Evaluation of Differentiable Inverse Rendering using Multi-View RGB Data.

Since Apr. 2023 **M.Sc., Electrical and Computer Engineering**,
Technical University of Munich.

Internships

Aug 13 - Feb 14, 2023 **Intern, Neural Rendering Research**, *Huawei Technologies*, Munich.

July 26 - Aug 28, 2021 **Developer**, *Aurum GmbH*, Munich.
Development of an RFID/NFC interface Device for writing to protectable memory of IoT sensors.
- NFC protocol standard e.g. iso14443
- OOP like programming in C99

July 10 - July 14, 2017 **Intern, client support**, *Electronic Theater Controls (ETC)*, Holzkirchen.

July 17 - July 21, 2017 , *Lauterbach GmbH*, Höhenkirchen-Siegertsbrunn.

Technical Experience

AI controlled model car — Implementation of a neural network framework in C++ for controlling a model car with a Raspberry Pi for a school project.

Vulkan-rt — Path tracer written in Rust using the sceen-13 library as a Vulkan abstraction. It supports the Disney BSDF with Next Event Estimation.

VkJit — Prototype Just In Time Compiler (JIT) with SPIRV/Vulkan as a backend, inspired by Dr.Jit

Large Steps in Mitsuba3 — Implementation of the Large Steps in Inverse Rendering paper in Mitsuba3 using its PyTorch integration

Paper for EG2024 — Paper on real time neural rendering using multidimensional hash grid encodings. Based on NeRad, written in Mitsuba3. (Conditionally accepted)

Programming Languages

C++ — Experience in modern C++ as well as C89 and C99. I have written Several projects in C/C++ from high level graphics applications to low level embedded software.

Python — Experience using Python with PyTorch, Tensorflow and Mitsuba for ML.

Rust — Experience using Rust for GPGPU and computer graphics. As Rust seems to be a promising new language for low and high level programming without some caveats of C++, I use it for my personal projects.

Other Abilities and Skills

Languages

German	native speaker
English	B2+/C1