Christian Döring

Graduate Student

doeringc2001@gmail.com
doeringc.de
doeringchristian
0009-0007-4763-8748

Education

2023 April – present
M.Sc. Electrical and Computer Engineering,
Technical University of Munich

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

2011 September – 2019 June
Abitur (A-Levels), *Gymnasium Bruckmühl*

Publications

2026
Real-time Rendering with a Neural Irradiance Volume
Arno Coomans, Giacomo Nazzaro, Edoardo A. Dominici, Christian Döring, Floor Verhoeven, Konstantinos Vardis, Markus Steinberger
arXiv

2024
Real-time Neural Rendering of Dynamic Light Fields
Arno Coomans, Edoardo A. Dominici, Christian Döring, Joerg H. Mueller, Jozef Hladky, Markus Steinberger
Project In Computer Graphics Formum (EG), 2024

Experience

2025 September – present
Masters Thesis, *Realistic Graphics Laboratory*, *EPFL*

2025 April – 2025 August
Research Intern, *NVIDIA* Zurich
- Function Level Caching for Dr.Jit and Mitsuba 3
- Hash Grid for Dr.Jit
- Differentiable Radio Frequency Modeling with Sionna RT

2024 April – 2025 April
Research Working Student, *Huawei Technologies* Munich
- Development on Dr.Jit/Mitsuba 3
- Real-time Neural Rendering Research

2023 August – 2024 February
Research Intern, *Huawei Technologies* Munich
- Real-time Neural Rendering Research

2021 July – 2021 August
Embeded Systems Intern, *Aurum GmbH* Munich
- Developed NFC library for STM32 in C

2017 July
Intern, *Lauterbach GmbH*

2017
July

Intern, *Electronic Theater Controls (ETC)* Holzkirchen

Side Projects

Hephaestus, Just In Time Compiler (JIT) for Vulkan, inspired by Dr.Jit. Implemented with own render graph solution. Includes cooperative matrix multiplication (KHR) and a port of tiny-cuda-nn in GLSL.
Source

Vulkan Path Tracer, Path tracer written in Rust using the screen-13 library. It supports the Disney BSDF with Next Event Estimation.
Source

Mitsuba 3 Experiments, Implementation of forward and differentiable path tracing algorithms in Mitsuba 3, such as ReSTIR GI and Large Steps in Inverse Rendering

Skills

Programming:

- **C/C++**, Rust
- **CUDA**, Vulkan
- **Python**, Lua
- **LaTeX**, Typst

Languages:

- **German** (native)
- English (B2+/C1)