Christian Döring

Curriculum Vitae

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

Real-time Neural Rendering of Dynamic Light Fields,

Arno Coomans , Edoardo A. Dominici, Christian Döring, Joerg H. Mueller, Jozef Hladky, Markus Steinberger

Computer Graphics Formum (EG), 2024

Project Paper

Work Experience

2024 April – present

Research Working Student, *Huawei Technologies.*

- Development on Dr.Jit/Mitsuba3

2023 August – 2024 February

Research Intern, *Huawei Technologies.*

- Researched Real-time Neural Rendering algorithms
- Gained experience with Mitsuba3

2021 July – 2021 August

Embeded Systems Developer, *Aurum GmbH.*

- Developed NFC library for STM32 in C

2017 July – 2017 July

Embeded systems development, *Lauterbach GmbH.*

2017 July – 2017 July

Support, *Electronic Theater Controls (ETC), Holzkirchen.*

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Side Projects

Hephaestus-jit, 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-rt, Path tracer written in Rust using the screen-13 library. It supports the Disney BSDF with Next Event Estimation.

Source

Mitsuba3 Experiments, Implementation of forward and differentiable path tracing algorithms in Mitsuba3, such as *ReSTIR GI* and *Large Steps in Inverse Rendering*.

Skills

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

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

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