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

Internships

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 in C++ for controlling a model car with a Raspberry Pi for a school project.
A model car was equipped with five ultrasonic sensors. Then the neural network was pre-trained using an evolutionary algorithm in a simulated environment. In the end this neural network was connected to the input sensors of the car as well as to the controls. Tests where conducted to evaluate the object avoidance capabilities of the vehicle.

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

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

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