Jim Eckerlein
Software Engineer

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EXPERIENCE

GPU Software Engineer, UX3D GmbH
January 2019 — Present

Development on Gestaltor, the company's product, using Qt and C++. Engine and middleware development in C++, Vulkan, and OpenGL

Contribution to the official Khronos glTF Sample Viewer and adding support for Draco mesh compression to the official Blender glTF Importer and Exporter

Software Developer,
MBS Electronic Systems GmbH & Co. KG
June 2017 — December 2018

Implementation of a PDF rendering widget in C++, QML, Qt Quick targeting an embedded device

Reference

Trainee, ESR Labs GmbH
September 2015 — July 2016

Implementation of CAN message sender and receiver on an Arduino device

Construction of Hardware on which the software implementation is supposed to run on

Reference

EDUCATION

Technical University of Munich
October 2018 — August 2023

Bachelor of Science in Computer Science
Seminar work: The Evolution of the C++ Memory Model

Thesis: An Environment for Continuous Integration and Software Testing for sys-sage

SKILLS

C++20
Rust
Java
Git, GitHub
WebGPU, Vulkan, Metal, OpenGL
Qt 6

Familiar: Swift, Android, Haskell, Kotlin, JavaScript, and HTML/CSS

Languages: German, Czech (bilingual), and English C1

Personal Interests: Realtime rendering, mathematics, Geometric Algebra, programming close to hardware, being productive

PERSONAL PROJECTS

4D Geometry Renderer
Implementing a Flutter App rendering a spatial slice of a draggable 4-D geometry. Features interactive rotation on the X-W plane, the resulting 3-D slice is computed and renderered in real time. Source code

JavaScript mini IDE
Implementing an Android App featuring a JavaScript editor with syntax highlighting. The code is parsed in C++, the result passed back through the JNI. Features a built-in file explorer to persistently store scripts. Source code