Jim Eckerlein

Software Engineer

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EXPERIENCE

GPU Software Engineer, UX3D

January 2019 - Present

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

Contribution to the <u>official Khronos gITF Sample Viewer</u> and adding support for Draco mesh compression to the <u>official Blender gITF Importer and Exporter</u>

Software Developer, mbs Electronic Systems

June 2017 — December 2018

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

Reference

Trainee ESR Labs

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 - Present

Bachelor of Science in Computer Science Seminar work: <u>The Evolution of the C++ Memory Model</u>

Thesis: An Environment for Continuous Integration and

Software Testing for sys-sage

SKILLS

C++20

Rust

Java

Git, GitHub

Vulkan, 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