

Jim Eckerlein

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EDUCATION

Technische Universität München · Computer Science B.S. [*since Oct. 2018*]

- Programming, Computer Architecture (Assembly)
- Discrete Structures, Linear Algebra, Analysis, Numerical prog.
- Funktional prog. (Haskell), Algorithms and Data Structures

EMPLOYMENT

UX3D GmbH · GPU Software Engineer [*since Jan. 2019*]

- Middleware development in **C++**
- Engine development in **C++** using Vulkan
- Contribution to **Khronos glTF Sample Viewer** [github.com/KhronosGroup/glTF-Sample-Viewer]
- Implement Draco mesh compression in **Blender glTF Exporter** [github.com/KhronosGroup/glTF-Blender-IQ]

MBS Electronic Systems GmbH · Software Developer [*June 2017 - Dec. 2018*]

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

ESR Labs · Software Developer [*Sept. 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

PERSONAL PROJECTS

4D Geometry Renderer

- Developed a **Flutter App** rendering a spatial slice of 4D geometry.
- Implemented interactive rotation on the XW plane, 3D slice is computed in real time.

JavaScript Editor App

- **Android App** featuring a syntax highlighting JS editor.
- JavaScript code is parsed in C++, the result passed through the **JNI** to Java.
- Features a built-in file explorer to persistently store scripts.

SKILLS

Software (proficient): C++/C, Vulkan, OpenGL, Java, Git

Software (familiar): Rust, Haskell, Kotlin, Android, JavaScript, HTML/CSS

Personal hobbies: Programming, Reading, Hiking

Languages: German (mother-tongue), English, Czech