Manuel Riecke
Software Engineer

api.beast@gmail.com
+49 1573 3879830
Born 12.08.1993

Moldenweg 9
21339 Lüneburg
Germany

Summary

Self-taught	Self-Reliant, Fast Learner, Adaptable, Passionate
Low-Level Programmer	Experienced in C/C++ and Zig Data Structures, Algorithms and Memory Managment Game Engine Architecture
Technical Artist	Linear Algebra, Shaders, Signed Distance Fields OpenGL, Bindless Render Engine Architecture Color Spaces, Tonemapping, Particle Systems Substance Designer, 3D Modelling, Animation, Graphics Design, Pixel Art
Application Development	User Interface Design Serialization, UI State Synchronization Git, CMake Python, PHP, CSS, HTML, JavaScript

Portfolio

libColorProcess 2020, Open Source

– C++17 library for image processing
– Developed using Test Driven Methodology
– Algorithms for Color Remapping, Color Reduction and Perceptional Color Sorting
– Auto-vectorization through aligned memory allocation.
– Source available at github.com/API-Beast/libColorProcess

ColorTool 2018-2020, Commercial

– Full commercial software application for digital artists
– Shader-based real-time filters and effects
– Transaction based Undo/Redo
– Robust versioned Serialization
– Implemented using Godot and C++14

Springbok 2013-2015, Open Source

– C++11 game engine
– Batched OpenGL sprite renderer
– Custom file format parsing
– Streaming audio player using OpenAL
– Utilities for random number generation and keyframe animation.
– Source available at github.com/API-Beast/Springbok

Misc Prototypes

– **Earthscaper** SDF-based Terrain generation in GLSL
– **sGFX** Bindless OpenGL 4.5 2D Renderer in C++
– **CriticalDice** P2P Networked Application in JavaScript
– **Stargazer** Physics-based top-down shooter in C++ with Springbok
– **Blackguard** 2D Stealth Game with dynamic lighting in C++ with SFML
– **Index Color** filter for Krita, Open Source Contribution