

Mitchell Hansen

Experience

- Dec 2018 – **Embedded Software Developer**, *Elektrobit*, Bothell, WA.
Present At my current and lovely company Elektrobit, I am tasked with supporting our Tresos and Corbos implementations of the Autosar automotive standard. This support takes many forms; Dealing with low level debugging of automotive ECU's, from assembly to the OS architecture. Painstakingly fact checking configurations against CPU spec sheets. Or even sprinkling in a little onsite customer support as an Autosar SME.
- July 2017 – **Software Developer (Embedded / Full Stack Web)**, *Espial*, Kirkland, WA.
Dec 2018 At Espial I initially applied my knowledge of embedded products and C/C++ to hunt for bugs in a legacy set-top-box C++ codebase. I also aided in maintenance of the test automation framework for said codebase. I later pivoted to another role in the cloud services team, in which we performed all the engineering required for maintaining and developing a large IPTV SaaS solution. This included bug fixes, feature work, automation (test&build), releases, and if we were unlucky, cm and ops.
- June 2016 – **Full Stack Web Developer, Intern**, *Donuts Inc.*, Bellevue, WA.
Sept. 2016 At Donuts I wrote bad html/css, and bad javascript. I still write bad html/css/js. I also learned that I'd rather move my career more in the direction of embedded development.

Skills & Languages

In depth knowledge / Professional experience.

C, C++, and their compilers & linkers, Java, Python, Rust, OpenCL, Linux, Git / Perforce / SVN / etc. AUTOSAR, Automotive compilers, debuggers, toolchains

Enough to be dangerous.

Vulkan, OpenGL, SQL, Javascript, HTML & CSS, Android, AWS, Alexa, Bash

Passing knowledge, enough to sound dangerous.

Flask, SVN, GDB, L^AT_EX, Unity3D, Windows & Mac

Education

- 2012–2017 **B.S. in Computer Science**, *Central Washington University*, Ellensburg, WA.
Birth - **Mega-Nerd**.
Present I'm a lifelong learner and a total nerd. I program as a hobby, love learning new things, and am always up for a challenge.

Portfolio

Volumetric Rendering Engine, *OpenCL, C++, SFML, Voxel Ray Marching, 3D Math*.

An experimental "From Scratch" volumetric rendering engine utilizing a voxel dataset organized in a sparse voxel octree, Blinn-Phong lighting, dynamic shadowing, texturing, and reflections, along with a TCP streaming Android controller. Presented at the CWU College Of The Sciences fair.

Tracer, *Rust, Vulkan*.

A 2D drawing machine. From pulleys to hardware accelerated image processing.

Conways Game of Life, *OpenCL, C++, SFML*.

Completely in-core GPU Conways Game of Life simulator and accompanying RLE decoder.

Project Euler, *Python*.

Combinatorics, discrete math, and other logic problems solved using Python.

– Seattle, WA – USA

📞 509-607-0079 • ✉ mitchellhansen0@gmail.com • 🌐 mitchellhansen.info
🔗 git.mitchellhansen.info