Mitchell Hansen

Experience

Aug 2023 – Present
Senior Embedded Device Systems Engineer, *Flock Safety*, Remote
At Flock Safety, I was once again thrown into the ever-ambiguous challenge of designing, creating, and launching innovative products at an incredibly fast-paced startup. I refused to accept any concept of 'blockers,' relentlessly pursued and prioritized holistic views of the tasks that stood between product inception and launch (HW, factory, OS/Apps, Ops, you name it), and made many critical contributions to fleet stability, launch timelines, feature performance, and most importantly, team morale and attitude.

April 2021 – Aug 2023
Embedded Software Engineer III (IC) / Camera FW Lead (Manager), *Wyze Inc.*, Remote
At Wyze, I became a Zen master of refactoring, the Sun Tsu of LoC count, a code monkey with the most primal desire to simplify all that I could touch. I learned more and worked harder than at any point in my career and gained important ownership over critical core product features. I actively played a key role in the complete lifetime of multiple products, from inception, to launch, to maintenance; And was a trusted expert voice in the design and architecture of our software solutions.

Dec 2018 – April 2021
Embedded Software Engineer, *Elektrobit*, Bothell, WA
At Elektrobit, I was tasked with supporting EB's Tresos and Corbos implementations of the Autosar automotive standard. This support took 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 – Dec 2018
Software Engineer (Embedded / Full Stack Web), *Espial*, Kirkland, WA

June 2016 – Sept. 2016
Full Stack Web Developer, Intern, *Donuts Inc.*, Bellevue, WA

Skills & Languages

In depth knowledge / Professional experience

o C & C++, their compilers, linkers, debuggers, standard libraries, typical program design, etc.

o Complex and distributed embedded systems. From bringup, bootloaders, and kernels; up to EdgeAI, architecture, and implementation of complex features. The full monty.

o AUTOSAR, Automotive silicon, compilers, debuggers, toolchains. CAN, ISO26262, and the litany of other associated specs and standards.

o OS's of all flavors. The AUTOSAR RTOS/OSEK, FreeRTOS, Linux, etc.

o Java, Python, Rust, OpenCL, Linux, Git / Perforce / SVN / etc. The Tools of the Trade.

Enough to be dangerous
Vulkan, OpenGL, SQL, HTML & CSS, AWS, MQTT, WebRTC.

Passing knowledge, enough to sound dangerous
ML/AI, LaTeX, PCB design & bringup, Javascript/Typescript/WASM and other devilish web creations.

Education

2012–2017
B.S. in Computer Science, *Central Washington University*, Ellensburg, WA

Birth - Present
Mega-Nerd
I'm a lifelong learner and a total nerd who thrives on difficult challenges. I voraciously consume any project and codebase that comes across my desk & take pride in the hard won skills I have learned from the many many mistakes I have made.

Portfolio

Volumetric Rendering Engine, *OpenCL, C++, SFML, Voxel Ray Marching, 3D Math*
An experimental "From Scratch" volumetric rendering engine utilizing a SVO voxel dataset, Blinn-Phong lighting, dynamic shadowing, texturing, and reflections.

Many other things...
That you can find on my personal website and self-hosted git instance linked at the bottom of this page