Utsav Munendra

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Work Experience

Meta, Senior Software Engineer — Jan 2022 - Present
Virtual Reality Firmware — Burlingame, CA

- Brought up boards, sensors and communication interfaces for Meta Quest headsets and Meta Touch controllers.
- Brought up USB Mass Storage end-to-end solution, from AOSP filesystem integration to flash sensor drivers. Committed bugfixes to LittleFS and Zephyr.
- Designed sensor driver framework and HAL implementations for efficient sensor sampling from Qualcomm Hexagon DSP while targeting reusability with other MCUs.
- Improved compute load and modularity of sensor data streaming APIs via Linux kernel driver optimizations.
- Led in-market support for camera firmware involving architecture improvements, agentic bug-resolution, AI-assisted data-analysis along with collaboration with Qualcomm on CamX.
- Led JMD as the sole partner SWE for Meta Quest Controller Rechargeable Batteries, and designed its interface and protocol with OEM controllers.
- Assisted various factory builds via on-site debug and bringup support along with tooling implementation.

Green Hills Software, Software Engineering Intern — Summer 2021, Summer 2022
MULTI Debugger & Advanced Products Group — Santa Barbara, CA

- Extended the Rust compiler and standard library to natively support new Green Hills' Integrity RTOS targets. Proved support by hosting a web server on targets backed by prevalent async runtime Rust crates.
- Increased performance of GHS Embedded Systems Debugger by making IPC more efficient.

Verkada, Software Engineering Intern — Winter 2021, Spring 2021
Cameras Core OS — San Mateo, CA

- Assisted in board bringup for CD62 Dome camera model and created the test rack for the new hardware.
- Brought up OS service in Go for system encrypted volume setup and filesystem management.

Education

University of California, Los Angeles — Sept 2018 - Dec 2021
B.S. in Computer Science, Henry Samueli School of Engineering and Applied Science
GPA: 3.96, *summa cum laude*
Reader and undergraduate TA for CS33: Computer Organization (Systems Architecture)

Projects

Open-Source Contributions to Zephyr RTOS — 2025
Approved contributor for Zephyr Project, merged patches for various flash, MSPI driver and compatibility layer fixes.

WebAssembly Runtime (WAMR) for ARM Mbed — 2020
Allows existing WebAssembly modules to run on ARM Mbed boards and the web alike for increased portability for IoT applications.

Skills

Languages C/C++, Python, Rust, Go
RTOS Zephyr, RTX5, Qualcomm QuRT
Tools GDB, CMake, Makefile, BitBake, Bazel, SCons, Logic Analyzer, Oscilloscope