

SAM MUSSER

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LinkedIn: <https://www.linkedin.com/in/sammusser> ✉ Portfolio: <https://samuelmusser.github.io>

SUMMARY OF QUALIFICATIONS

Self-motivated software/embedded engineer with more than 3 years of experience, strong interpersonal skills, and mentorship roles. Brings significant diversity in expertise ranging from hardware interfacing and board bring-up to application development and user experience. Open to both in office or remote positions, and willing to relocate.

Skills and Topics:

Bash, Embedded Linux, Git, Object Oriented Programming
Android OS (AOSP), FreeRTOS, Linux, Raspbian, Ubuntu
Code Review, Full OS Stack, Circuit Design, Schematic Review
Gerrit, Jenkins, MATLAB, Multisim, Eagle

Programming Languages:

C, C++, Java, C#, Python

Peripherals Experience:

I2C, SPI, GPIO, RS-232, USB

EXPERIENCE

Rosen Aviation | Software Engineer

July 2021 - Present | Eugene, OR

Projects

- Sustained and developed Rosen's internal Android operating system by writing applications, services, and plugins in **C++** and **Java** (Custom command language, power management systems, threaded IPC)
- Modified and implemented **Linux kernel** drivers for **Raspbian** and **AOSP** in **C** for video chain pipeline working in the kernel through the hardware abstraction layer (V4L2, MIPI, CSI)
- Flight Dashboard Gauges application in **Java** querying flight management systems with sports-car theme
- Led research and development on performing upgrades to new OS versions with dynamic memory allocation and incorporating enhanced security encryptions for video streaming
- Designed hardware specific software solutions for NXP's **Arm Cortex** series i.MX8MQ SoM and performed board bring-up (BSP, Uboot etc.)
- Facilitated future ease for project revisions, configuration management, and file system maintenance with **Bash** scripts and automated build systems
- Built and integrated custom library for network interface control and DHCP servicing for internal production applications in **C#/.NET** Framework automating systems in Iron **Python**

Roles

- Software Lead of the 65" Smart Display Project
- Software Lead of Cabin Management Systems and Video Streaming and Encryption R&D
- Software Engineering Mentor for new engineers with training and assistive leadership experience
- Rosen Sustainability Committee Lead resulting in BRING Certification and nomination by City of Eugene for Bold Steps Award

Ascent Resources | Developer Intern

May 2021 – June 2021 | Oklahoma City, OK

- Scripted database transactions and performed SQL query optimization
- Overviewed network analysis with the systems administrator
- Held sessions with the Vice President of IT on business intelligence and data refinement

EDUCATION

University of Oklahoma (OU) | Norman, OK

Bachelor of Science in Computer Engineering | May 2021

GPA: 3.24 / 4.00, Minor: Computer Science

- Academic Scholarships: Distinguished Scholar Scholarship (EMHS Valedictorian with ACT: 30/36), William H. Barkow Scholarship (Electrical/Computer Engineers), Ernest W. Reynolds Endowed Scholarship (Electrical/Computer Engineers)
- Study Abroad in Italy featuring Art History in Rome and Climate Science in Venice
- Memberships: National Society of Collegiate Scholars, Community Action Council
- Notable Courses: Algorithm Analysis, Cryptography, Data Structures featuring C++ and Google Cloud, Digital Signal Processing, Structures and Abstractions, VLSI System Design, EE/CE Lab