

# SAM MUSSER

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

## SUMMARY OF QUALIFICATIONS

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Self-motivated software engineer with more than 4 years of experience, strong interpersonal skills, and mentorship roles. Brings significant diversity in expertise ranging from bare-metal programming and embedded firmware to system services/frameworks and front-end development. Open to both in office or remote positions, and willing to relocate.

### Skills and Topics:

Bash, Embedded Linux, Git, Object Oriented Programming  
Android Open Source Operating System, FreeRTOS, Linux, Raspbian, Ubuntu  
Code Review, Gerrit, Github, Full OS Stack, Schematic Review  
Google Console, Firebase, Jenkins, MATLAB, Multisim, Eagle

### Programming Languages:

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

### Peripherals Experience:

I2C, SPI, GPIO, RS-232, USB

## EXPERIENCE

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**Josh.ai** | Software Engineer II

June 2024 – Present | Denver, CO

### Projects

- Sustained and developed in the flagship Josh Android application in **Kotlin**, increasing app efficiency, improving class extensibility, adding new device controllers, and interfacing with the backend
- Developed the Josh.ai **Updater** system service in **Kotlin** for application and firmware upgrades resulting in a dependable upgrade pipeline and quickly rolling out changes
- Worked directly with contract manufacturers to develop expedited solutions for new products, most notably the **Josh Touchscreen**
- Automated internal revisioning using **Bash** and created a centralized file archive for data preservation

**Rosen Aviation** | Software Engineer

July 2021 – June 2024 | Eugene, OR

### Projects

- Sustained and developed in 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 **Android (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 partitioning and 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 configuration management with **Bash** and automated build systems
- Built custom library for network interface control and DHCP servicing for internal production applications in **C#/NET** Framework automating systems in **Iron Python**

### Notable Roles

- Software Lead of the 65" Display Project, Cabin Management Systems R&D, Video Streaming R&D
- Software Engineering Mentor for new engineers with training and assistive leadership experience
- Rosen Sustainability Team Lead resulting in BRING Certification / award nomination by City of Eugene

**Ascent Resources** | Developer Intern

May 2021 – June 2021 | Oklahoma City, OK

- Scripted database transactions and performed **SQL** query optimization

## EDUCATION

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**University of Oklahoma (OU)** | Norman, OK

**Bachelor of Science in Computer Engineering** | May 2021

GPA: 3.24 / 4.00, Minor: Computer Science

- Scholarships: Distinguished Scholar Scholarship (EMHS Valedictorian with ACT: 30/36), William H. Barkow Academic Scholarship, Ernest W. Reynolds Endowed Academic Scholarship
- Community Action Council, National Society of Collegiate Scholars, Study Abroad in Italy