

# SAM MUSSER

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## SUMMARY OF QUALIFICATIONS

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Self-motivated and dependable software/computer engineer with strong interpersonal skills and mentorship experience.

### Skills and Topics:

Bash, Embedded Linux, Git, Object Oriented Programming  
Android Open-Source (AOSP), Ubuntu, Real-time Operating Systems (RTOS)  
Circuit Design, Schematic Review, Code Review, Full OS Stack  
Matlab, Multisim, Eagle

### Programming Languages:

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

### Peripherals Experience:

I2C, SPI, GPIO, RS-232, USB

## EXPERIENCE

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**Rosen Aviation** | Software Engineer

July 2021 - Present | Eugene, OR

### Projects

- Sustained and developed Rosen's internal Android Open-Source Project operating system by writing applications, services, and plugins in **C++** and **Java** in an Ubuntu development environment (Custom command language, power management systems, threaded inter-process communication)
- 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)
- 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 and file system maintenance with **Bash** scripts
- Built and integrated custom library for network interface control and DHCP servicing for internal production applications in **C#** with .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 improving internal conditions
- 6S Lean Leader of the Gym and Arcade facilities

**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 on Ethernet protocols
- Held sessions with the Vice President of IT on business intelligence and data refinement

## EDUCATION

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

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

GPA: 3.24 / 4.00

- Computer Science Minor
- Academic Scholarships: Distinguished Scholar Scholarship (EMHS Valedictorian with ACT: 30), William H. Barkow Scholarship (Electrical/Computer Engineers), Ernest W. Reynolds Endowed Scholarship (Electrical/Computer Engineers)
- OU Journey Program: Study Abroad in Italy featuring Art History and Climate Change
- National Society of Collegiate Scholars Member
- Community Action Council Member: Dad's Day Committee
- Notable Courses: Algorithm Analysis, Cryptography, Data Structures featuring C++ and Google Cloud, Digital Signal Processing, Structures and Abstractions, VLSI System Design