Griffin Solimini

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Summary

Microsoft Xbox Software Engineer with 6 years industry experience in a broad range of areas including frontend user experiences, backend development, and application infrastructure. Motivated about problem solving in many spaces, but specifically interested and passionate about exploring areas of lower level development close to hardware.

Work Experience

Microsoft - Gaming
Redmond, WA

SOFTWARE ENGINEER — *Nov. 2018 - Present*

- Designed and implemented the Game Catalog Extensions SDK, which included and API for developing out-of-proc WinRT components to be used as extensions to provide management capabilities for third party gaming content seamlessly from the Xbox App. The first partner to integrate, Riot Games, had 267M hours of playtime attributed (with an estimated 1.17M new subscriptions acquired) in the first four months live.
- Manage engineering relationships with Riot Games, EA, and Ubisoft regarding developing extensions for the Xbox App. Currently working with Electronic Arts and Ubisoft to migrate from existing integration mechanisms to the Game Catalog Extensions SDK, to grow engagement hours similarly to Riot Games.
- Implemented the frontend and backend of a PC Game Pass subscription surface to be added into the Windows operating system's out-of-box experience, utilizing existing Microsoft infrastructure. Responsible for driving additional growth for the top-of-funnel PC subscriber count.
- Increased robustness of Xbox PC client's infrastructure, leading to improvements in reliability, performance, and developer experience. Tasks included but not limited to: migrating the Xbox PC client to utilize the Hermes JavaScript engine, facilitating React Native Windows upgrades into the application, and onboarding the application to a new application monitoring platform (sentry.io).
- Shipped numerous user facing features and fixed critical bugs in preparation for the launch of the Xbox PC client and PC Game Pass at E3 2019.

Microsoft - Silicon, Graphics, and Media
Redmond, WA

PROGRAM MANAGER — *Sept. 2017 - Nov. 2018*

- Managed a relationship between Microsoft and Qualcomm working on OS and BSP integration. Tracked issues and validation for incoming BSP drops, and managed code flow externally back to Qualcomm.

Skill Development Projects

WIRELESS HEADSET CONVERSION KIT
https://github.com/gryph6/headset

- Building a USB dongle and headphone adapter kit to convert wired studio headphones into a wireless headset for gaming or work.
- Prototyping on a pair of RP2040 Pico boards, using I2C and SPI to interface with display and RF modules. Implementing the host-side dongle as a class compliant UAC2.0 device.
- Currently working on migrating over to an STM32F411CEU6 to take advantage of its I2S peripherals (for interfacing with a DAC module) and faster Cortex-M4.

KEYBOARD PCB
https://github.com/gryph6/keyboard

- Designed and built a keyboard PCB using an ATMEGA32u4 microcontroller.
- Supports 68 keys, a rotary encoder, an OLED display, and USB2 over a USBC port.
- Designed the schematics in KiCad, selected components, worked with PCBWay to fabricate and assemble the PCB, and utilized QMK framework to customize and flash firmware.

CHIP-8 EMULATOR
https://github.com/gryph6/Griff-8

- Building a CHIP-8 emulator in C++ (https://wikipedia.org/wiki/CHIP-8).
- Implemented virtual memory, registry, stack, and 35 opcodes in order to build a working emulator utilizing Direct2D for graphics.
- Capable of passing a community ROM test, and can play several games.
- Next steps include adding support for more games, code cleanup, and adding SUPER-CHIP-8 opcode support.

Education

Ohio State University
Columbus, OH

B.S. IN COMPUTER SCIENCE AND ENGINEERING — *Aug. 2013 - May 2017*

- 3.93 GPA, Summa Cum Laude with Honors Distinction.
- Eminence Fellowship and Full Scholarship, given to recognize previous high academic performance.