

Patrick Hirsh

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Education

University of Utah College of Engineering
B.S. Computer Science
Entertainment Arts & Engineering Emphasis

Salt Lake City, Utah
Graduation: December 2019
GPA: 3.4

Skills & Interests

Languages: C#, C++, C, Python, x86 Assembly, MIPS Assembly
Technologies & Environments: Unity, OpenGL, Git, Android, MySQL, QT, \LaTeX
Focuses/Interests: OOP & OOP design patterns, Unity Engine, Arduino/Raspberry Pi Development, AI

Projects

Ride.Share (Senior Capstone Project, Fall 2018 - Spring 2019)

- A mobile AR game (Android/iOS) about controlling a fleet of rideshare vehicles to beat out rival rideshare companies.*
- Developed in Unity with C# utilizing ARCore and ARFoundation.
 - Worked with 15 colleagues from various disciplines (engineering, art, design, audio, and producer roles).

ProjectDMD (Dot-Matrix-Display Project, Spring 2019 - Present)

- Developed software (C++) to control RGB LED dot-matrix display panels using a Raspberry Pi and Adafruit HAT.
- Acts as a smart clock that displays the time, various retro animations, and useful information pulled from the internet.
- Developed software (C#) capable of parsing Stern binary game code files, extracting font/animation data in up to 7 different compression formats, and re-encoding this data into a more efficient proprietary file format designed for my DMD software.

WS2812B Addressable LED Controller (Fall 2018)

- Built Arduino software to control strips of WS2812B leds with an IR remote.
- Programmed a variety of sequences and presets, including realtime sound visualization.
- Wrote a sound processing script that applies sampling/smoothing techniques to create clean audio visualization.

Network-Enabled Spreadsheet (Spring 2017)

- Developed a spreadsheet application that allows for concurrent editing over a network similar to *Google Sheets*.
- Implemented both client and server-side applications in C# using RESTful API.

Sprite Editor (Fall 2017)

- Worked with a team of 5 to design a sprite editor in C++ using QT Creator.
- Utilized agile development and MVC design philosophy.
- Designed UI using QT Creator and created control systems for interfacing with the view.

Experience

YouTube Content Creator (Channel: *Fluxtrance*, 2012 - Present) - www.youtube.com/fluxtrance

Fluxtrance is a YouTube channel I run that emphasizes design & functionality in simulation/sandbox games. I upload time-lapsed footage of myself creating worlds, cities, and environments with voiceover commentary.

180k+ subscribers and 34 million+ video views
150k+ Steam Workshop upload subscriptions.

Paradox Interactive (Contract Work, 2018 - Present)

- Worked on a team to create the map & city used in the *Cities: Skylines Industries* DLC trailer (September of 2018).
- Organized, planned, and co-hosted Paradox Interactive's *Global Buildoff!* in Stockholm (October of 2018). Quadrupled Paradox's typical concurrent viewership during this event.
- Streamed live to the front page of the Steam Store for Paradox Interactive's *Publisher Weekend* (August of 2018).
- Produced tutorial videos published to the *Cities: Skylines* YouTube channel to help players use various mods and tools.