TOBIN CAVANAUGH

Seattle, WA

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SUMMARY

Strong problem solver, hard worker, and quick learner. Performance oriented. Focused on writing code for speed and readability. Strong C and C# Programmer.

EXPERIENCE

TOOLS PROGRAMMER

Electroimpact | Mukilteo, WA | Summer of 2023

- Designed and programmed TrackerCommander, a proprietary software in C#, to operate, record, measure and analyze laser tracker data.
- Saved Electroimpact $30k per project from competing software's business license fees by creating TrackerCommander.
- Invited back for Summer 2024.

PROGRAMMER / GAME DESIGNER / 3D ARTIST

Upon The Wind | Fall 2022

- Created a stylized and consistent graphics style influenced by Studio Ghibli films like Spirited Away and Princess Mononoke.
- Implemented the Unity URP pipeline to optimize performance across platforms and allow for flexible.
- Programmed an automated environment creation tool to allow for dynamic and immersive gameplay.
- Made use of 3D vector operations to allow the player to move screen space, relative to the rotation and position of the camera.
- Made all game models and animations with a focus on style cohesion.

Pure C Strings | Summer 2023

- Made use of low-level memory management, allowing for memory efficient and safe mutable strings in a custom data structure.
- Resulted in an easy to use and predictable library, allowing others to implement safe strings in their projects.
- Optimized the library with a balance of code readability, performance, and memory consumption, all within the highly performant C language.

Grandpa's Cabin | Summer 2023+

- Worked as the project manager and programmer on a team with two other 3D artists.
- Implemented satellite imagery data and artists models to create a fully accurate rendition of an existing cabin in the woods, as well as surrounding terrain and landmarks.
- Created a robust tool for generating ziplines between locations, allowing artists to define two arbitrary points, then with just a click, create a fully animated and player-interactable zipline.
- Communicated with team to clearly establish project requirements, an art pipeline, and a development process.

EDUCATION

B.S, COMPUTER SCIENCE

University of Mary, ND

2027 Graduate

SKILLS

- C, C#, Unity, Blender, Raylib, SDL2, Python, HTML, JS, CSS