Tobin Cavanaugh

###### Seattle, WA

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| Portfolio: <https://tobincavanaugh.github.io/> GitHub: <https://github.com/TobinCavanaugh> | Email: [tobincavanaugh@gmail.com](mailto:tobincavanaugh@gmail.com)  Phone: 206 586 5263 |

# 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 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

## BACHELOR OF SCIENCE IN Computer SCience

##### University of Mary, Bismarck, ND

Expected Spring 2027

# Skills

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