# Allie Lavacek

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### **EDUCATION**

### University of Michigan - Ann Arbor

Bachelor of Science, Computer Science

### August 2020 - December 2024

Current Overall GPA 3.86

# RELEVANT COURSEWORK

- ❖ Introduction to Game Development
- ❖ Data Structures and Algorithms
- ❖ UI Development

- Extended Reality and Society
- Foundations of Computer Science
- **❖** Web Systems

- Software Engineering (F24)
- Computer Organization
- Computer Vision

# WORK EXPERIENCE

### Blizzard Entertainment, Irvine, CA/Gameplay Engineering Intern

May 2024—August 2024

- On Overwatch 2, utilized C++ and Statescript visual scripting language to develop features within custom Tank engine
- Modified Statescript nodes to enable new gameplay features, including shockwaves (Reinhardt's Earthshatter, Mauga's Overrun, etc.) which can reverse towards the sender and dynamic projectile collision radii
- Improved workflows by adding an Entity Info debugger panel and logic that simplifies adding charges to an ability

#### ❖ Kyrie Studios, Remote/Gameplay Programming Intern

November 2023-April 2024

- ❖ In Unreal Engine 5, worked with a team of 25 others to develop Patheon Rift, a thrilling party-style battle royale
- Implemented unique NPC and animal behaviors, knocking rolling barrels, cannons, and explosions

# Visteon Corporation, Belleville, MI/Product Development Intern

May 2023-August 2023

- \* Explored the benefits of using Unreal Game Engine for automotive HMI through a Proof of Concept project
- Collaborated with a cross-functional team in the Godot Game Engine to implement features and optimize performance in order to investigate potential options to enhance the user experience

### **PROJECTS**

# Wolverine Soft Studios, Ann Arbor, MI/Programming Lead

April 2023-April 2024

- ❖ Maintained Git Repository and handled merge conflicts that were encountered
- Oversaw a team of 8-13 students. Held weekly meetings, office hours, and planned meetings with an industry advisor
- ❖ From August 2023-April 2024, developed an RPG in the Unity Game Engine with a team of 40 students
- Created the prototype of the game and the architecture of all basic functionality: a battle system similar to that found in the popular title *Undertale*, input and movement scripts, a dialogue system, and a quest system
- ❖ From April 2023-August 2023, collaborated with a team of 30 students to create a captivating "2.5D" game in the Unity Game Engine which emulated the gameplay mechanic of the popular title *Nova Drift*
- Created the prototype of the game and the architecture of all basic functionality: an encounter system, input and movement scripts, and enemy controller and weapon abstract classes to build on

#### Granny's Day Off, Ann Arbor, MI/Design Lead

October 2022-December 2023

- ❖ Team of 5 developers and a musician, created a 3D, 1v1 3rd person shooter in the Unity Game Engine
- \* Responsible for the initial designs and concept, NPC and Police's movement behavior, post-processing, art and animation integration. Created the Player, NPC, and Player House 3D models in Blender

# 48 HOUR GAME JAMS / TEAMS OF 3-5

# BEE-01/Wolverine Soft's Turkey Jam

November 2022

❖ Implemented encounter system, enemy controller scripts, health scripts, and damage scripts

### Getting to the Root of It/Global Game Jam

February 2023

\* Responsible for all art integration, camera movement, and health scripts