

# Nathan Wildofsky

(937) 925-2140 | nsw7227@rit.edu  
linkedin.com/in/nwildofsky | nwildofsky.github.io

## EDUCATION

**Rochester Institute of Technology (RIT)**, Rochester, NY  
*Bachelor of Science, Game Design and Development*

Expected Dec 2023

**GPA: 3.8**

## SKILLS

**Programming Languages:** C#, C++, JavaScript, HTML, CSS

**Game Engines:** Unity, Unreal Engine 5

**Tools:** Visual Studio, Visual Studio Code, Git, Perforce, Maya, Surface Painter, Photoshop CC

## PROJECTS

### **Racecar Evolution** | 1 month

- Implemented a 2D simulation environment in Unity where racecar AI agents follow a genetic algorithm to learn to master driving on a looped racetrack using combos of simple driving inputs.
- Generated a user-friendly track creator GUI utilizing modular track tiles for the user to create varied simulation environments.

### **Mystic Forest** | 1 month

- Developed a custom 2D movement and platforming system, which features jumping, dashing, wall sliding, and wall jumping, to serve as the basis for a level design project.
- Designed a platformer level in Unity, focusing on lighting and darkness mechanics and challenging the player, as a part of a compilation of levels created by a team of students.

### **Basic Rendering Engine** | 3 months

- Architected a rendering engine in C++ and DirectX 11 with support for a 3D viewport with camera controls, transform objects with meshes and materials, 3 types of lights with shadow maps, and runtime manipulation utilizing Dear ImGui.
- Engineered a method of dynamic shadow mapping which allows lights to be repositioned at runtime and shadows to be updated on a per request rather than per frame basis.

## WORK EXPERIENCE

### **Discovery Machine**

Jan 2023 – April 2023

*Software Engineer Intern*

Williamsport, PA

- Leveraged new software to upgrade 3D characters with better designs and graphic fidelity.
- Created domain specific Unity Editor tools to automate the character import, cleanup, and preparation processes to support a new Reallusion to Unity ready-to-use pipeline.
- Constructed a large Unity world with multiple points of interest, inspired by multiple real-world locations for use in a variety of military training simulations.

### **Rockstar Games**

June 2022 – August 2022

*AI Programmer Intern*

Andover, MA (Remote)

- Expanded the versatility and functionality of novel player input mechanisms currently in development while also ensuring those mechanisms are easier to use and comprehend.
- Added debugging and testing tools for immediate use by the global AI/Gameplay team.