Mirinae Toste

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SKILLS

Soft: Interdisciplinary Communication/Collaboration, Leading Development Teams, Game Design/Development

Technical: GPU Programming/Shaders, Algorithms, Computer Graphics, Databases, AI/ML, Computational Game Theory,

Languages: C, C++, C#, Unity, Java, Python, Wolfram Mathematica, SQL, Linux

EDUCATION

MAY 2025

UC Berkeley, Berkeley CA - *BA in Computer Science* - 3.953

GAME DEVELOPMENT EXPERIENCE

July 2024

Sandlocked - *https://pragma-twice.itch.io/sandlocked*

- Wrote entirety of code base for a 3 day Jam in Unity C#.
- Created a custom sand physics engine using cellular automaton and marching squares
- Developed a custom version of A* pathfinding algorithm that allows for finding the shortest path without adhering to a grid.
- Designed a streamlined system for creating new levels using Unity tilemaps.
- Worked closely with 2D artists to ensure animations worked well in the game.

August 2023 - December 2023

Home for Anderson - *https://pragma-twice.itch.io/homeforanderson*

- Created a water-freezing mechanic with a custom movement and collision system using the Unity NavMesh system.
- Designed, 3D modeled in blender and decorated the main body of levels while incorporating other artists' models.

December 2023 - June 2024

Aetherborne - *Unreleased*

- Wrote majority of codebase for an online trading card game using Unity C#.
- Successfully implemented a system for online player matching, allowing users to find games and to play cards over the network using Mirror.
- Overcame bugs and limitations in Mirror by modifying Mirror's source code enabling the team to send cards over the network.
- Created Unity shader effects for various transparent and animated 3D objects while working with the 3D art team allowing for more interesting visuals.
- Created many 6 card designs and gave feedback to other designers.

August 2024

Dead Weight - *https://pragma-twice.itch.io/dead-weight*

- Wrote entirety of code base for a 4 day Jam in Unity C#.
- Developed a system that allowed shadow casters to overlap with light sources by modifying Unity Shadow Caster 2D source code.

RESEARCH

July 2022- May 2023

Berkeley Artificial Intelligence Research, Berkeley CA- *Undergraduate Researcher*

- Contributed as the third author to the published paper titled "Shape-Guided Diffusion".
- Independently generated and tested ideas for ML-driven generation of objects within environments .