# **DANI AMIR**

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#### **EDUCATION**

The University of Texas at Austin, Austin, TX

May 2023

Bachelor of Science in Computer Science

**Relevant Coursework:** Introduction to Programming, Data Structures & Algorithms, Computer Architecture, Operating Systems, Linear Algebra, Game Technology, Game Programming Paradigms

#### **SKILLS**

Languages: C, C++, Python, C#, JavaScript, HTML/CSS, Java

Technologies: Unreal Engine 4, Unity 3D, React Native, Godot, Selenium, Git, GNU Debugger, Visual Studio, Perforce

#### **WORK EXPERIENCE**

#### **Electronic Arts | Maxis**

May 2022 - August 2022

Software Engineer Intern

- Used C++ to develop and improve internal debugging tools for The Sims 4 by creating shortcuts for filtering audio and VFX information, adding additional debugging logs, and adding shortcuts to display audio and animation information simultaneously
- Designed and implemented a fast-loading mode that bypasses the main menu of the game and loads straight into Live Mode, which improved game startup time

#### **PROJECTS**

#### **Boulder Run (2021)**

- A game developed using Unity 3D where the player must reach the top of a hill while avoiding boulders
- Implemented a custom character controller coded in C# which allows third-person camera rotation and movement
- Designed and created a streamlined UI for the main menu of the game
- Efficiently reduced lag and managed memory by implementing a script to delete unused game objects, which led to a 15% increase in frame rate

### Soccer Simulation (2021)

- A 5 vs 5 soccer game developed using Unreal Engine 4
- Designed and implemented an AI class for the players on the pitch
- Implemented behaviors such as dribbling, chasing the ball, and returning to home positions in C++
- Used behavior trees to execute certain tasks based on conditions on the soccer pitch

### **Wipeout (2021)**

- A game developed using the Godot engine where the player must get through an obstacle course and reach the trophy at the end to win
- Designed and created an obstacle course in Godot with 4 different obstacles
- Implemented scripts in C++ to animate the obstacle course and detect when the player has won
- Designed and implemented a networked multiplayer system that supports up to 2 players

## VR Simon Says (2021)

- VR Simon Says game developed using Unreal Engine 4
- Developed and designed a crowd simulation using Niagra and animations
- Implemented gameplay functionality such as interacting with buttons, advancing in rounds, winning state, and losing state using **Blueprints**

# Automaton (2022)

- A horror game developed in Unity 3D where the player must collect clues, evade enemies, and escape a mansion
- Designed and implemented an enemy AI using a behavior tree with behaviors such as chasing, killing, patrolling, and stalking
- Designed and implemented an AI director script in C# that gives hints to the enemy AI about the location of the player