Kyle Reese

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WORK EXPERIENCE

Naval Undersea Warfare Center Division Newport (NUWC), Newport, RI — Jul '20 - Sep '21

- Co-ran a tabletop wargame of four teams of officers and engineers
- Provided weekly analysis on moves from each team and how their actions would impact the game
- Wrote documentation to inform senior officers about the processes and results of the game

PROJECTS

Unweighted, GMTK Game Jam '22 Submission — Jul - Aug '22

- Developed an isometric puzzle game in Godot with a team of three
- Programmed player movement with respect to the tile map
- Designed puzzles and managed their order presented to the player
- Implemented end of level UI and level transitions

Advanced Gunsuit: Technowars, GMTK Game Jam '21 Submission — Jun '21, Mar - May '22

- Developed a 2D platform shooter in Godot with a team of four
- Designed core mechanic linking together character attributes
- Programmed base player controller and UI functionality
- Refactored player stats into a transferable resource available between levels

Unnamed 3D Arena Shooter Project, Personal Project — Sep '22 - Present

- Developing a first person arena shooter in Godot in a team of three
- Constructed 3D test environment for gameplay testing and prototyping
- Networked game functions across multiple peer participants
- Implemented weapon and projectile functions and physics

Godot Jump, Personal Project — Jan - Mar '22

- Developed a 2D infinite platformer in Godot on a team of two
- Designed level chunks and a system to change their generation based on player skill
- Implemented scrolling parallax background, background music, and sound effects

The Caverns Below, WPI, ProcJam '19 Submission — Nov '19

- Prototyped a platformer in a team of two using Game Maker: Studio
- Randomly generated full levels out of authored level chunks using a Markov Chain
- Procedurally generated the character's jump height, speed, and gravity properties for each life

3-DOF Autonomous Robotic Arm Control, WPI — Aug - Oct '18

- Calculated forward and inverse position and velocity kinematics to control the movement of a 3-DOF arm around a pre-existing workspace
- Formulated a quintic trajectory generation function to smoothly control the arm
- Programmed real time tracking of objects in the workspace to pick up and sort based on weight

SKILLS

Programming: GDScript, C#, C++, Python, Lua, Java, C, HTML/CSS, Arduino, MATLAB
Engines/Frameworks: Godot, Unity, Unreal Engine, Love2D, Game Maker: Studio
Software: GitHub, Advanced Excel, Autodesk Inventor, Solidworks

AWARDS

WPI Design Innovation FIRST Robotics Scholarship, WPI — Aug '16 - May '20

EDUCATION

Worcester Polytechnic Institute (WPI)
Bachelor of Science; Computer Science and Robotics Engineering — May '20

LEADERSHIP

Sigma Pi Gamma-Iota, Justice Board Member — Dec '16 - Present
WPI Jazz Groups, Executive Board Member — Sep '16 - May '20