Logan Thatcher

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EDUCATION — · — · — · —

California Polytechnic State University, San Luis Obispo (Cal Poly)

Bachelor of Science Degree in Computer Science

Concentration: Interactive Entertainment

March 2021

GPA: 3.3

SKILLS -

Proficiency with the game engines Unity and Unreal Engine 4

Experience using the OpenGL API and the graphics pipeline to render 2D and 3D scenes

Extensive experience using C, C++, C#, Java, and Python in complex 1000+ line programs

Familiarity working with R, Javascript, Ratchet, LLVM, Inform7, and Lua

Practiced in implementing MySQL to create and use relational databases

Practiced using Maya and Blender to create simple 3D models for my games

Working knowledge of control management softwares: Git, Travis CI, Maven and SonarQube

GAME PROJECTS -

Island Royale Showdown

Developed in Unreal Engine 4, Published on Steam A Multiplayer First Person Battle Royale Shooter with Adaptive Al Teammates

- Independently developed a game: 7000+ downloads, 3000 hours played
 Devised AI teammate system based on a behavioral tree structure that
- Devised AI teammate system based on a behavioral tree structure that adapts to support the players' actions
- Utilized client/server architecture to create a stable multiplayer service
- Built a diverse 3D environment with thousands of objects and elements
- Enriched play experience with sound cues, muzzle flash, animations
- Created an informative HUD and UI for players
- Employed UE4 blueprints to streamline development as appropriate

Robo Revolution

Developed in C++ with OpenGL A 1v1 first person shooter with an XCOM style overview and turn system

- Collaborated within a team of 4 to help and learn from each other
- Programmed directly with the OpenGL API for rendering
- Used GLSL to produce shaders to create FX: motion blur, depth of field, artificial distortion, and reflections
- Implemented multipass rendering effects like shadows and transparency
- Applied graphical optimizations like view frustum and back face culling
- Created visual debuggers to verify the performance of optimization

The Legend Of Kyle

Developed in Unity Published on Kongregate A Top Down isometric medieval themed Dungeon Crawler with some shmup (shoot 'em up) like elements

- Led project design of 6 person team to a successful project completion by maintaining a focus on goals and using team member strengths
- Coordinated integration and worked with teammates debugging issues
- Developed a system of tools to efficiently create a variety of AI enemies
- Designed a combat UI including pixel art icons and a concise minimap
- Utilized the Unity component system to enhance the game with particles, lighting effects, and sounds

StoutKeep Tactics

Developed in Unity Digital Strategy Board Game

- Thoroughly prototyped to develop a complex, strategic game design
- Iterated and balanced through rounds of user testing
- Reviewed feedback to understand and improve gameplay quality

RELEVANT COURSEWORK — · ·

Games: Game Design, Artificial Intelligence, Game Development, User-Centered Interface Design and Development **Graphics**: Real-Time 3D Computer Graphics Software, Intro to Computer Graphics

Systems: Database Systems, Algorithm Design & Analysis, Systems Programming, Computer Arch., Linear Algebra