Corbyn LaMar

Technical Designer

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Skills

Languages: C/C++, C#, Unreal Blueprint Visual Scripting, Java, Python
Software: Visual Studio, Perforce, Git, GitHub, SVN, Figma, Valgrind, Doxygen, Blender, Word, Excel, PowerPoint
Engines: Unity Engine, Unreal Engine, C++ Custom Engine
Game Design: Level Design, Grayboxing, Encounter Design, Layout Planning, Systems Design, UI Implementation, User Interface Design, User Experience Design, Design Documentation, Paper Prototyping, Playtesting, AB Testing
Programming/Math: Object-Oriented Programming, Data Structures, Memory Management, Network Programming, Algorithm Design/Analysis, Agent Artificial Intelligence, Code Reviews, Pair Programming, Unit Testing, Automation, Code Documentation, Engine Architecture, JSON Serialization/Deserialization, File I/O, Debugging, Linear Algebra, 3D Vector Math, Calculus, Discrete Mathematics

Projects

Technical Designer [Academic Project] **August 2024 - Present**
***Eidolon: Fate of Fools* | 3D Arena First Person Shooter (Unreal, Blueprints & C++)** **9 Person Interdisciplinary Team**
- Grayboxed and iterated on 3 multiplayer arena maps, integrating gameplay and level features to encourage strategic player movement.
- Engineered C++ and Blueprint scripts to visualize telemetry data for grid-based heatmap analysis of player fps and level metrics.
- Implemented networked arena mechanics, including weapon and player spawning systems, bounce pads, moving platforms, and a spline-based propulsion tunnel to empower designers with dynamic tools.
- Coordinated playtests of LAN and Steam network systems, including a 40+ person public stress test to validate technical performance.

Technical Designer [Academic Project] **August 2023 - April 2024**
***Cats N Critters: A Dungeon Claw-er* | 3D Top Down Dungeon Crawler (Unity, C#)** **10 Person Interdisciplinary Team**
- Implemented modular, procedurally generated dungeons using wave function collapse for creating scalable and varied level layouts.
- Optimized level systems with unit testing, telemetry, and data analysis, enhancing performance and gameplay for over 200 rooms.
- Developed gameplay mechanics, including moving platforms, interactive triggers, and level-based hazards to enhance player experience.
- Maintained the game's creative vision through user stories, design documentation, and team alignment leading up to a Steam launch.

Technical Designer | Quality Director [Bun Bun Games] **April 2023 - October 2023**
***We're Tethered Together* | 2D Puzzle Platformer (Unity, C#)** **10 Person Interdisciplinary Team**
- Designed 5 levels to adapt to evolving game mechanics, ensuring dynamic and engaging player experiences throughout development.
- Created UI prefabs for the pause and main menus, cutscene manager, and tutorial items, enhancing player navigation and experience.
- Refined and debugged level elements such as button doors, moving platforms, and an enemy manager, balancing difficulty and ensuring fluid player interactions.
- Showcased by Seattle Indies at the Washington Gaming Expo 2024 with over 96% positive reviews out of 193 reviews on Steam.

Software Engineer | Co-Producer [Academic Project] **August 2022 - July 2023**
***Inline: Out of Time* | 2D Time Attack Action Platformer (Custom Engine, C++)** **12 Person Interdisciplinary Team**
- Implemented and playtested gameplay mechanics, including adaptive targeting, delivery objectives, and a dynamic camera system.
- Architected a custom OpenGL-based graphics engine, optimizing rendering pipelines for performance and maintainability.
- Iterated on core engine systems, including the mesh manager, rendering pipeline, and JSON-serialized particle system.
- Collaborated on the game production cycle utilizing weekly sprints, leading to a successful publish on Steam.

Experience

Teacher's Assistant - Level Design Methods | System Design Methods **August 2023 - Present**
DigiPen Institute of Technology **Redmond, WA**
- Assisted in teaching procedural and handcrafted level design techniques, emphasizing player guidance and engagement.
- Guided students in comprehending principles and practices for creating and balancing resources in gameplay systems.

STEM Class Instructor **June 2024 - August 2024**
Open World **Redmond, WA**
- Fostered collaboration and problem-solving skills by engaging K-12 students in interactive learning experiences within game design.
- Designed curriculum modules combining technical concepts with creative problem-solving to inspire young learners.

Education

Bachelor of Science in Computer Science and Game Design **April 2025**
DigiPen Institute of Technology **Redmond, WA**
- Dean's List (2021 - Present)