Jiedi Mo, Gameplay Engineer

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PROFESSIONAL SUMMARY

Gameplay Engineer experienced in developing combat systems, enemy AI, and procedural gameplay mechanics using C++, C#, Unreal Engine 5, and Unity. Skilled in real-time graphics, GPU-based rendering, and shader programming with OpenGL and GLSL. Experienced in collaborative game development, debugging, and system integration. Currently pursuing an M.S. in Computer Science – Game Development at University of Southern California.

EDUCATION

University of Southern California — M.S. in Computer Science-Game Development | **Expected May 2028**
Relevant Coursework: 3D Graphics and Rendering, Design for interactive Media
University of Utah — B.S. Computer Science, Game Development Emphasis| **GPA: 3.62/4.0 (Dean's List)** | **May 2026**
Relevant Coursework: Computer Graphics, Game Design, Traditional and Alternative Game Developments, Operating Systems, Algorithms, Capstone Game Project, Computer Systems

TECHNICAL SKILLS

Languages: C++, C#, Python, GLSL, Java, JavaScript, Kotlin, SQL
Game Engines: Unreal Engine 5 (C++, Blueprints), Unity, GameMaker Studio
Gameplay: Gameplay Systems, Combat, Enemy AI, Behavior Trees, Player Controllers, Procedural Generation, UI/HUD
Development & Collaboration: Git, Perforce, Jira, Agile/Scrum, Unit Testing, Visual Studio, VS Code
Graphics & Technologies: OpenGL, GPU Rendering, GLSL Shaders, Niagara VFX, Box2D, Qt, Autodesk Maya, ZBrush, Substance Painter, Adobe Premiere Pro

SELECTED TECHNICAL & GAME PROJECTS

3-D Graphics and Rendering | **Graphics Programmer |C++, Python, OpenGL, GLSL | Aug.2026 - Present**
- Developed GPU-accelerated 3D terrain animation in C++ and OpenGL, implementing procedural mesh generation and noise-based terrain creation.
- Implemented and optimized Minecraft shaders in GLSL, featuring distorted shadow maps, volumetric lighting (god rays), atmospheric scattering, realistic clouds, and water rendering.

Cradle of the Rift | Gameplay Engineer & Programmer |Unity, C# |Team of 16 | Released on Steam | Aug-Apr 2026
- Built player interactions and procedural chest spawning with distance-based placement constraints.
- Developed enemy and boss AI with distance-based combat logic, multiple attack states, and boss variants.
- Created combat VFX and balanced player/enemy stats, aggression, and item effectiveness.
- Integrated, unit tested, and debugged gameplay within a 16-person Agile/Scrum workflow using Jira, Perforce, and Git.

Fallen Crown |Lead Gameplay System Engineer| Unreal Engine 5, C++ |Team of 5 | Aug–Dec 2024
- Developed C++ gameplay systems including player movement, damage, enemy AI, projectiles, and AOE attacks
- Implemented dialogue/level-event triggers, interactable objects, HUD, menus, and UI systems.
- Unit tested and debugged gameplay systems while collaborating within an Agile/Scrum development workflow.

Educational Military Tactics Application |Programmer & UI Designer |C++, Qt, Box2D |Team of 6 | Aug–Dec 2023
- Built and unit tested interactive UI quiz systems and Box2D-powered troop simulations with scoring and progression.
- Collaborated using Agile/Scrum, Jira, and version control to integrate UI and simulation systems.

EXPERIENCE

AI Research & Software Engineering Intern | SmartSens Technology | Summer 2026
- Developed Python automation tools for text-to-video generation and batch processing workflows.
- Benchmarked AI video models and optimized evaluation infrastructure using VBench.
- Used Codex-assisted workflows for Python implementation, debugging, code analysis, and problem-solving in VS Code.

Robotics & AI Research Intern | Shenzhen Meta Chip Technology Co. Ltd. | Summer 2025
- Built robotics navigation features using C++, Python, and 3D Gaussian Splatting for environmental reconstruction.
- Programmed a HiWonder JetAuto Rover to interface with AI models and 3DGS.