

Lizhuoyuan Wan

Game Designer | Systems, Combat & Encounter Design | Unity / C# / Java

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SUMMARY

Game Designer with 3 years of hands-on systems, combat and encounter design on live multiplayer games: led a Minecraft MMORPG from a two-person prototype to launch with ~10,000 registered players, and designed abilities for a live PVE/PVP FPS at a Tencent-invested studio. Designs and ships: implements own systems in C# and Java, tunes in playtests, and writes specs engineers build from directly. Competitive player (League of Legends Master, VALORANT Ascendant 2) who designs from the player's seat: decision making, counterplay and readability. MS Game Science & Design, Northeastern (May 2027); BS Computer Science: Computer Game Design, UC Santa Cruz.

PROFESSIONAL EXPERIENCE

Game Design Intern | Wuduan Network Technology (Tencent-invested), Hangzhou, China

Jul 2026 – Sep 2026

Shengsi Juji 2 (生死狙击 2): live COD-style first-person shooter with PVE and PVP modes

- Analyzed the end-to-end PVE and PVP player experience through hands-on play and community feedback; authored player experience reports with targeted proposals (new-player onboarding flow, staged feature-unlock pacing) to lower the learning curve and improve retention.
- Designed abilities for the weapon chip system by deriving each ability from the weapon's shooting feel (fire rate, recoil, ballistics), so abilities extend rather than conflict with weapon identity; expanded the combat loop from shoot–reload into layered decisions around ability synergy and resource management.
- Partnered with engineers to define event-trigger timing standards, translating design intent into trigger-condition documentation that programmers implement directly, reducing rework caused by spec misreads.

Producer & Lead Game Designer / Lead Java Programmer | Wuhan Chakabei Game Technology, Wuhan, China

Jan 2023 – Sep 2025

Witcher 3 in Minecraft: MMORPG server with action combat. Started it as a two-person project, founded the company to run it; team grew to ~15 (engineering, art, design, marketing). Launched Sep 2024: ~10,000 registered players, ~500 concurrent at launch, 4,000-member community; operated for 12 months.

- Designed and implemented the core combat systems: damage resolution and damage formulas as the single entry point for skills, gear and potions; passive/active skill trigger and release-condition logic; class skill-book progression with talent-point allocation.
- Designed 5 classes (Warrior, Mage, Priest, Assassin, Ranger) with 25+ active and passive skills each and inter-skill synergies that create distinct builds; balanced from class-combination damage ceilings, then tuned through 3 test rounds (50–100 concurrent players) and live feedback.
- Designed 20 boss dungeons and late-game raid encounters: phase mechanics, skill triggers, target selection and damage checks; rebuilt the monster AI as a custom state machine with a maneuver state after beta tests showed encounters not creating their intended situations.
- Designed and shipped a roguelike tower-climb mode and a fishing life system with randomized routes, reward-driven builds and progression loops linked to hidden dungeons, extending content lifetime.
- Owned systems for inventory and items, potion/item crafting, quests (3-tier quest → sub-quest → goal model, 30+ goal types, YAML-configured), party grouping, async instance loading and navigation; implemented core gameplay and server logic in Java (30,000+ LOC) on a Redis/MySQL data layer.
- Ran operations from closed test to launch: used level-distribution data to find a level-4 progression wall and fix it, planned launch/retention/re-engagement events, and grew the game through Bilibili (100k+ PV views) and QQ communities.

GAME DESIGN PROJECTS

Lead Game Designer | MC Project — first-person action MMORPG (Minecraft, 3-person team)

May 2026 – Present

- Designed an MMORPG that pairs Albion Online-style zone risk and a player-run economy with World of Warcraft-style dungeons; wrote it as 56 linked spec pages (450+ tables, 113 monsters, 706 items) that the team builds from as the single source of truth.
- Level design: D1, a 5-player dungeon built on one rule — walk 270° around a sunken yard, then drop into it from above — with a ~170-block main path, 4 trap types and 8 encounters, delivered as a 3D whitebox and layered plan; plus a procedural rift mode assembled from 28 room templates.
- Combat: melee resolves against per-bone hit boxes with body-part and swing-segment multipliers, the client measures and the server rules, and 18 reusable skill atoms make a new ability a config entry — beanyuan.com/codemc-mmorpg.html

Project Manager & Game Designer | TurretCoop — 4-player co-op tower defense roguelike (Unity, Photon)

Mar 2026 – Present

- Lead a 4-person team (design/programming, environment art, concept art, 3D) toward a commercial release; wrote 16 design documents covering characters, modular towers, enemies and bosses, 36 roguelike affixes, economy and waves, then built the systems in Unity with Photon PUN2 four-player co-op.
- Designed a modular tower system (base / body / top parts with distinct functions and per-module collapse), a medal economy that pays every role for its job, and a redesign from hammer-building to throw-building after internal play showed build timers broke the "positioning is strategy" pillar.
- Implemented seeded, timeline-stacked waves and Wave Function Collapse terrain generation for map modules so all four clients generate identical runs.

Lead Systems Designer | 3D Pixel-Art MMORPG (Unity, independent project)

Jun 2026 – Present

- Designed a server-authoritative elemental combat system: six element reactions and physical material destruction share one magnitude scalar and resolve through a single formula, producing emergent gameplay from rule composition instead of one-off scripts.
- Designed 5 class kits, each with a unique gameplay verb and payoff pattern, paired with 4-tier attack telegraphs for read-and-respond combat with clear counterplay; designed a craft-tier material economy that resists long-term inflation.

Design Specs (portfolio, 2026) | interactive bilingual specs with 3D mechanic demos

Sep 2026

- VALORANT agent concept "Hush": four sound-based abilities with cast rules, enemy-side readability and minimap rules, presented with Three.js demos — beanyuan.com/valorant-agent-hush.html
- World of Warcraft raid encounter "Vael'thar, the Loom-Warden": 20-player boss with a memory mechanic, three stages and an intermission, Normal/Heroic/Mythic values, cast timeline and a playable mechanic, written in Encounter Journal / wiki conventions — beanyuan.com/wow-encounter-loomwarden.html

Systems Designer & Unity Programmer | Demons & Knights, 2-player grid tactics game

Apr 2023 – Jun 2023

- Designed a turn-based, card-driven tactics loop on a grid board; built the grid, unit inheritance (Knight / Demon / Trap), turn logic and a random-event system; exposed balancing knobs (card values, movement, unit stats) for rapid playtest iteration.

Additional Projects

2023 – 2025

- ScrollScape (Unity, programmer): window-manipulation puzzle-platformer; built the non-Canvas window system, SpriteMask/collider clipping, character-controller feel and level tooling. Mutant (level designer): 3 levels around an ability-mimic mechanic. Flux (Unity): time-rewind platformer with a frame-level rewind system (20,000 frames). Three Bulky Bears (Unity, level mechanics): Drop Stone and Hot Area hazards for a 3-bear platformer the capstone team released on Steam in 2025.

EDUCATION

Northeastern University | Master of Science, Game Science and Design

Sep 2025 – May 2027 (expected)

- Research (Prof. Wallace Lages): designed and built a VR sensorimotor experiment in Unity — independent variables and metrics (hit deviation, angular error, reaction time, success rate), trial randomization and data logging for statistical analysis.

University of California, Santa Cruz | Bachelor of Science, Computer Science: Computer Game Design

Sep 2020 – Jun 2024

- Co-author, SPIE ICMIAM 2022: A CNN Model Used in a Web Page to Classify Skin Cancer (MIT-supervised research, 88% test accuracy).

SKILLS

Game Design: systems design, combat design, character/class and ability design, boss and encounter design, economy design and balancing, progression and roguelike systems, level and mission design, onboarding and retention analysis, rapid prototyping, playtesting and iteration, player data analysis, GDD and spec writing

Engines & Tools: Unity, Unreal Engine (basic), Godot, Photon PUN2, Git, Jira, Feishu/Teambition, Excel/Google Sheets (balance spreadsheets), Maya (basic), Claude Code / Codex-assisted workflows

Programming: C#, Java, C++, Python, TypeScript/JavaScript, MySQL, Redis

Player Profile: League of Legends Master (ADC), VALORANT Ascendant 2; World of Warcraft player; follows competitive play and balance discussions as design input

Languages: English (professional), Mandarin Chinese (native)

Work Authorization: F-1 student; eligible for CPT/OPT (36 months with STEM extension); will require sponsorship in the future