

Wanli (Lee) Lu Game Designer

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Core Skills: UE5 (C++ / Blueprint / GAS) | Editor & Tooling (UE Python / agentic workflows) | Combat & AI Systems Design | Perforce & Git

Education

University of Utah | M.S. in Entertainment Arts & Engineering (EAE), Engineering Track Salt Lake City, UT | Sep 2025 – May 2027

Pennsylvania State University | B.S. in Computer Science, Math Minor State College, PA | Sep 2019 – Dec 2024

Experience

Technical Designer (Intern) | miHoYo | NODUSFALL May 2026 – Jun 2026

AAA open-world title

- Built a natural-language editor toolchain on **UE Python and AI Agents**, driving Blueprint and scene operations directly from the IDE
- Built automated tools to detect and locate character-scene collision issues in the **World Partition** open-world workflow

AI-Native Game Designer (Intern) | Giant Interactive Group | Meiju Story Jul 2026 – Sep 2026

AI-native anime-style romance mobile game

- Broke down, designed, and prototyped the **new-player onboarding flow**; partnered with engineering and art to ship red-dot notifications, tutorial queue, and related features
- Designed and shipped the **tower-defense mode**, plus the AI-native gameplay and LLM input/output control for the China game-license (ISBN) submission build

Backend Developer (Intern) | Tencent | Global Digital Ecosystem Summit (DES) 2021 Jan 2021 – Aug 2021

- Built multi-layer backend APIs and the data layer with **Java / Spring Boot** (PostgreSQL / MySQL / Redis), and implemented the event-tracking (analytics) system, supporting stable operation of the summit's online systems

Certifications & Languages

Epic Games Unreal Authorized Instructor (Jan 2026) | **Epic Games Game Design Professional Certificate** (Feb 2025) | GRE 335 + 4.5 | TOEFL 108

Publication

First Author | Unreal Engine Nanite Foliage Shadow Imposter | SPIE Aug 2023

- Proposed a “Shadow Imposter + non-shadow-casting foliage” scheme to replace dynamic-shadow foliage, enabling dynamic/static shadow switching for high-cost WPO-enabled Nanite meshes
- Built alpha-card tree models, multi-level LODs, and textures in Blender / UE, and documented the optimization pipeline

Projects

Wuxia GAS Combat Framework (UE5 / C++) | Lead Programmer • Gameplay Designer Jan 2026 – May 2026

Multiplayer action combat framework built on GAS and the Unreal Animation Framework; targeting release on Fab / Epic Games Store

- Designed the combat loop around Motion Matching — combos, dodges, block/parry, hit reactions, and enemy AI as composable units, so designers extend new moves via data config without touching framework code
- Implemented synchronized two-character finishers (Paired Finisher) using **Contextual Anim Scene (CAS)**, handling dual-actor alignment, animation sync, and interrupt rules
- Architected a reusable Gameplay Ability / Effect / Attribute / Cue system to centrally manage combat state flow and presentation triggers
- Integrated and customized the MetaHuman pipeline, extending Story Framework and Narrative Tales for gameplay-event-driven narrative triggers

Bubba Yuga (UE5) | Lead Programmer • Gameplay Designer Oct 2025 – Dec 2025

Physics-driven local two-player co-op puzzler in the vein of Chained Together

- Designed and implemented the chain physics system (**Physics Constraint / Handle**). Drove the state machine purely from physics, mapping physical behavior to animation to support swinging, pulling, and two-player throwing as core mechanics
- Built local two-player enhanced input (gamepad support); owned Perforce version control and the **full Steam release pipeline** (Depot / branches / release config), shipping the PC build

Forgetful Roots VR (UE5) | Lead Programmer • Gameplay Designer Sep 2025 – Oct 2025

VR narrative game built around three everyday memory vignettes from the life of an elder living with Alzheimer's

- Designed and implemented core systems, including advanced interaction components (custom grab, distance pull, climbing, driving, shooting) and a Twin-Stick locomotion scheme
- Built and optimized a multi-level VR UMG menu system (custom pointer, view-following UI, and other comfort features); owned full-system integration and final QA delivery

Games

Action: Elden Ring, Sekiro: Shadows Die Twice, Black Myth: Wukong, Where Winds Meet (1000+ hrs) **Competitive:** DOTA 2 (NA Rank #116), Apex Legends, Deadlock

Co-op: It Takes Two, Human: Fall Flat, Left 4 Dead 2 **Roguelite:** Risk of Rain 2, Slay the Spire 2 **Other:** Genshin Impact, Honkai: Star Rail, Baldur's Gate 3

Portfolio

Wuxia GAS Combat Framework (UE5 / C++ / GAS)



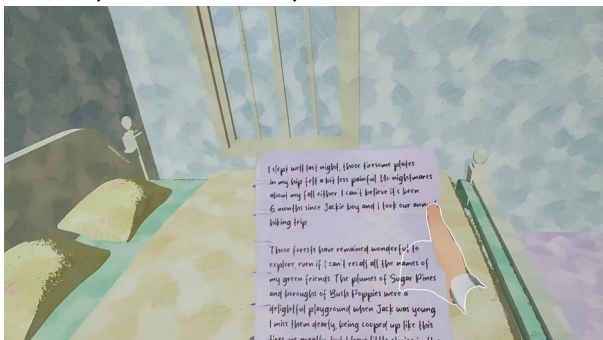
Left: CAS synchronized finisher (Paired Finisher) Right: live GAS debugging (damage resolution / CommitAbility / GameplayCue trigger chain)

Bubba Yuga (UE5 • two-player co-op physics puzzler)



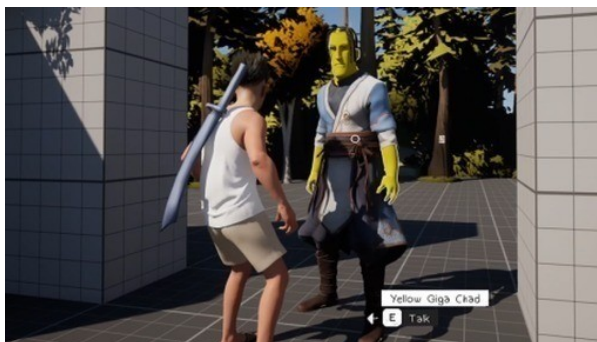
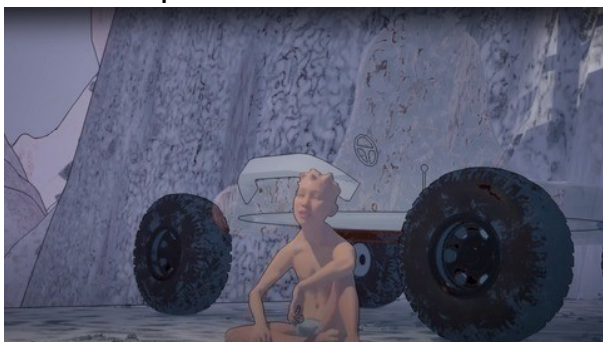
Left: rope pull Right: chain zipline

Forgetful Roots VR (UE5 • VR narrative)



Left: diary reading interaction Right: NPC dialogue system & enhanced physics grab

Other • Art & Character Pipeline



Left: Once Upon A Baby VR — Blender sculpting Right: Wuxia GAS Combat Framework — MetaHuman pipeline integration | More demos:

wanligames.com