# SHIHAN LIU

GAME DESIGNER



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London, United Kingdom









# SKILLS

## **Game Design**



- Gameplay Design
- System Design
- Rapid Prototyping
- Figma
- Unity (C#)
- Unreal Engine (Blueprints)
- Excel
- Adobe Suite

### **Development**

- Visual Studio & VS Code
- Maya & Blender
- GitHub & Perforce
- PC & Android

## **Project Management**



- Technical Writing
- Trello & Jira
- · Slack & Microsoft Teams

## **EDUCATION**

Goldsmiths, University of London MA Computer Games Art & Design Pass With **Distinction** 

**Graduation Internship Project:** 

- Collaborated on an NHS-funded VR training project with Goldsmiths, University of London.
- Integrated motion capture animations in Unity, recorded facial and hand performances, and developed a FSM(finite state machine) and mobile remote control for interactive patient simulations.
- The project provided immersive psychiatric consultation scenarios for trainee psychiatrists.

#### PROFILE

A passionate Junior Technical Game Designer with 3 years of **experience** designing and developing games in Unity using C#. Holds an MA in Computer Games Art & Design with Distinction.

#### EXPERIENCE

## **Technical Game Designer**

May 2024 - May 2025

Braingaze, London, United Kingdom

- Gaze Project 1 (Mobile Game | Unity 6) Google Play Link
  - Owned core gameplay system: Designed and implemented a unique core loop focused on eye-tracking and object interaction.

Developed a modular spawning framework and created multiple friendly and hostile targets, each with distinct behavioural logic.

Over 500 internal test sessions confirmed low learning curve and high late-game challenge.

• Owned level and event systems: Created a scalable level structure with progressive difficulty. Designed 20+ interactive events requiring actions like gazing, dodging, peripheral tracking, and following. The system dynamically adjusts to difficulty levels.

Internal feedback praised the seamless blend of punishment mechanics and calibration logic, especially in boss battles. Iterated based on 20+ rounds of testing.

- Owned UI system: Developed a dual-mode UI system supporting both gaze-based input and touch interaction, optimised for mobile platforms.
- Supported build packaging and test release submission for Google Play, gaining practical experience with deployment processes and store compliance requirements.
- Gaze Project 2 (Mobile Game | Unity 6)
  - Owned core gameplay system: Designed a fast-reaction, recognition-focused gameplay loop based on eye-tracking.

Created friendly and enemy targets with features such as visual baiting, behavioural logic, and light-based distraction.

Received positive feedback from the director, highlighting the demo's strong visual and gameplay design, as well as reliable performance across different screen resolutions.

• Owned map and level systems: Designed a multi-map progression framework based on resource cycles and gameplay pacing.

The system requires players to manage and balance progress across several maps, switching between them while unlocking new areas.

The proposal has been approved by the team leader and is currently in development.

#### Game Designer

Apr 2024 - Jul 2024

Dream Reality Interactive, London, United Kingdom

- Unannounced MOBA Project (Unreal Engine 5)
  - Designed and implemented various visual effects, and set up several large-scale MOBA-style map scenes.
  - Gained practical experience in using **Jira** for task management and Perforce for version control throughout the project.

- Real-time Al Digital Human Project (Unreal Engine 5)
  - Built a complete real-time interaction workflow using UE5 Metahuman. Integrated speech-to-text, Al memory learning, text-to-speech, lip-sync, and facial expression generation to create a responsive Al digital human.
  - The character was based on Al-Khwarizmi, the father of algebra. The demo received highly positive feedback from the director.
- Rare Pets (Free to Play Mobile Game)
  Google Play Link
  - Redesigned three horizontal-screen scene layouts with distinct compositional perspectives based on the original vertical-screen setup. The perspective changes were self-developed for a 2D environment. One version was adopted by the team lead, who was impressed by the creativity and adaptability of the design.
  - **Designed the project's badge system.** Created UI pages for displaying both collected and uncollected badges in line with the game's existing art style, and defined the interaction logic between related GUI elements. Learned and applied the standard format of a Feature Design Document.
  - Gained valuable experience from this commercial free-to-play (F2P) project, including designing within constraints, collaborating with artists, programmers, and producers in a professional development cycle, and performing QA tasks such as identifying and reporting bugs during internal playtests.

#### Freelance Designer & Developer

May 2023 - Mar 2024

Paid work for individuals, indie studios, and universities across Europe.

- Human–Machine Collaboration VR Experimental Project (VR | Unity 2023)
  - Collaborated with the CE Lab at the University of Lisbon to develop an experimental **VR project** focused on human-machine cooperation and interaction.
  - The project was built for Meta Quest 2, with over 200 participants successfully completing tests and contributing usable data.
- Human Negative Symptoms VR Experimental Project (VR | Unity 2023)
  - Worked with a PhD researcher from King's College London to develop a experimental **VR project** exploring negative human negative symptoms and coordination ability.
  - The project was built for **Meta Quest 2**, supported both standalone and PC-linked VR modes, and gathered valid data from over **80 participants**.
- Victorian-Era London Opera House AR Reconstruction Project (AR | Unity 2023)
  - Collaborated with a professor from Goldsmiths' Department of Music to reconstruct a Victorian-era London opera house in **AR**.
  - The project allowed users to freely explore the opera house's multi-storey structure and interact with its installations. It supported both **WebAR** and **Mobile AR** platforms.

# Technical Game Designer | Team Lead

Jan 2024

Global Game Jam, London, United Kingdom

- Pooppybara (PC Game | Unity 2022)
  Game Demo Link
  - Owned the project's core gameplay system, designing a fart-and-feeding-based mechanic where uncontrolled farting launches the capybara character, aiming for a humorous and chaotic experience.
  - **Designed the mount system**, creating a range of rideable friendly creatures inspired by capybara behaviour, each with distinct logic and functions.
  - The project was developed within **48 hours**. When the level design direction deviated, I promptly adjusted the scope of environmental creature work to make up for limited time on level design.

#### ABOUT

Currently based in London and open to relocation. Focused on gameplay and systems design, with 3 years of experience in Unity & C#, 1 year in UE5 & Blueprints, 1.5 years working on VR projects (Unity & Meta Quest 2), 6 months on AR projects (Unity & Android), and 6 months of commercial F2P experience. Possesses end-to-end mobile game development experience, from design to store release.