

Bangyu Li

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[Github.com/deep-river](https://github.com/deep-river)

Education

Newcastle University	Newcastle upon Tyne, U.K.
MSc Computer Game Engineering	Expected: Sep 2025
University at Buffalo, SUNY	Buffalo, NY, U.S.
BS in Computer Science	Jan 2018 – Aug 2021

Professional experience

Breaker Games, Shanghai	Oct 2023 – Apr 2024
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UE5 Technical Designer

- Designed and Implemented DLC content for *Project Zero 2: Apocalypse Party* using Blueprints, including weapons and character talents. The DLC increased player retention by 24% on Steam and received mostly positive reviews.
- Collaborated closely with external translation team and led the localization of the project for English and Korean.

Treelab, Shanghai	Jun 2022 – Apr 2023
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Golang Back-end Engineer

- Developed the workflow execution service using a Temporal + RabbitMQ architecture, improving reliability for specific business scenarios by over 50%.
- Maintained infrastructure functions under a Docker microservice architecture, including logging, i18n (Internationalization) and data synchronization, ensuring stable infrastructure performance.
- Built CI/CD pipelines for automated testing and deployment in Development environment, significantly accelerating project deployment speed.

Lilith Games, Shanghai	Jun 2021 – Jun 2022
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Technical Designer

- Collaborated with cross-functional teams and oversaw acceptance testing for physics, terrain, and matchmaking systems in the *Avatar* game engine.
- Developed plugin tools that provided versatile technical solutions for the game design and art teams, significantly improving the production pipeline efficiency.
- Designed and implemented multiple gameplay features for *Project Party*, including collecting mechanics and inventory systems, contributing to a more engaging player experience.
- Reconstructed the cutscene editor and designed the quest system for a narrative-driven game framework (*Revolver Editor*), enhancing the storytelling mechanics and the usability of the *Avatar* game engine.

Projects

Fantasy RPG Demo – [Github](#) | Demo Video: [Bilibili](#)

A multiplayer RPG demo showcasing my expertise in designing and implementing complex gameplay systems.

- **Networking:** Implemented a C# network messaging framework using Protobuf for real-time, event-driven state synchronization of character movement, ensuring smooth and reliable multiplayer interactions.
- **Game Systems:** Developed core gameplay systems, including inventory, shop, friend list, team-up, and multi-channel chat to enrich multiplayer gameplay experience.
- **User Interface:** Built an intuitive UI framework with UGUI for managing menus, item displays, and inventory interactions, improving the overall user experience and interface responsiveness.

Tic-Tac-Toe – [Github](#)

Implemented the Tic-Tac-Toe game with AI opponents of varying difficulty, utilizing algorithms like minimax for unbeatable difficulty level.

Grappling Hook Demo – [Github](#)

Recreated the grappling hook mechanics from *Sekiro: Shadows Die Twice* using Unity. Implemented dynamic rope physics and hook detection to create realistic grappling behavior.

Skills:

Programming languages:	Proficient in Python / Go / C# / Javascript / Lua
Unity Engine:	Proficient in UGUI / Unity plugins / prototyping Experienced with Animator / Rigging / Shader
Unreal 5 Engine:	Proficient in Blueprint scripting / prototyping Experienced with Able Ability System / Behavior tree
Version control tools:	Proficient in Git / P4