



# Shirley Yan

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## PROFESSIONAL SUMMARY

Unity Developer with hands-on experience in building modular gameplay systems, scalable UI architecture, and real-time networking using C#, Protobuf, and Photon. Worked across genres including survival, multiplayer FPS, and card-based strategy. Able to build clean code from scratch and quickly adapt to existing codebases. Passionate about creating intuitive and engaging player experiences in collaborative development environments.

## SKILLS

- C# Programming: Solid grasp of Unity scripting

Modular Gameplay Systems & Framework Design: Event-driven architecture (delegates, custom event centers), MVC architecture etc

Socket Communication: TCP, Protobuf-based serialization

Scene Management: Async loading, game state switching

Editor Tooling: Custom inspectors, Scriptable Object pipelines

Shader: Basic knowledge of URP structure and experience in implement simple shaders
- UI Frameworks: Proficient in UGUI, NGUI

Object Pooling: Bullets, effects, enemies

Photon SDK: Integrated real-time multiplayer logic

Data Serialization: JSON, PlayerPrefs, XML and binary

Version Control: Basic understanding of Git, branch operations

SDK Integration: Basic experience integrating Android SDKs and third-party APIs (e.g., account login, location APIs)

## EXPERIENCE

UNITY DEVELOPER 10/2024 to CURRENT

### Wilderness Elite (Multiplayer FPS) Demo Project

Personal project exploring FPS mechanics, multiplayer network architecture, and modular framework design

- Designed and implemented core FPS mechanics including player movement, animation, shooting, and weapon switching
- Built an event-driven system for managing UI, health, ammo, and damage feedback
- Integrated TCP socket networking and Protobuf serialization for real-time communication. Integrated **Photon** to handle room

management

- Developed enemy AI spawning logic and basic state machines for patrol and combat behavior
- Structured gameplay modules with reusability and object pooling for performance
- Created a multi-layer UI system with modular controls and dynamic loading

## PROJECT INITIATOR & UNITY PROGRAMMER

07/2024 to 09/2024

### GMTK GameJam & Indie Game Blood Rising (2D Card Strategy Game)

Steam:

[https://store.steampowered.com/app/3178660/Blood\\_Rising/](https://store.steampowered.com/app/3178660/Blood_Rising/)

- Developed core combat system and modular UI architecture using C# and Unity
- Designed an event-driven framework to handle card effects, triggers, and game state transitions
- Collaborated with artist to prototype an **AI-assisted card design pipeline**, optimizing iteration and creative flow
- Delivered a functional vertical slice within game jam scope and continued post-jam polishing

## EDUCATION

**Bachelor of Engineering** | Mechanical Engineering  
**National University of Singapore**