# Diana Dou

Game Developer | Aspiring Technical Artist
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## Technical Skills

Programming Languages: C#, C++, GLSL, JavaScript, Python, R, SQL

Engines & Frameworks: Unity (URP/HDRP), Unreal Engine (Blueprints), OpenGL, Photon Engine

Interaction: Controller Inputs, Hand-tracking, Hands-free Input, Mediapipe

Tools: Adobe Suite, Blender, Git

## Education

**Simon Fraser University** *Sep 2025 - Present*
Master of Digital Media

**University of British Columbia** *Sep 2019 - Apr 2025*
Bachelor of Science, Major in Computer Science

Relevant Courses:
Computer Graphics (A), Computer Vision (A-), Computer Animation (A-), Video Game Programming (A)

## Professional Experience

**UBC Faculty of Medicine - EdTech | Learning Technology Rover** *Sep 2022 - Apr 2023*
- Engineered ICE 2, a VR medical simulation featuring hand-tracking for clinical exams and voice-activated dictation.
- Collaborated on learning analytics systems to provide real-time clinical decision-making feedback.
- Optimized 3D asset pipelines from Blender to Unity, reducing draw calls for standalone VR performance.

## Technical Projects

**Brave VR | Lead XR Developer** *Jan 2026 - Present*
- Architected hands-free VR interactions using custom C# algorithms for respiratory monitoring and head-gaze tracking.
- Implemented diegetic UI and spatial feedback systems driven by physiological data.

**Ethereal Breath (Interactive Shader) | Technical Artist | Developer** *Dec 2025*
- Developed HLSL vertex shaders allowing environment foliage to respond to real-time gaze vectors and breath input.

**Eco-Gesture: Textile Recycling | CV & Unity Developer** *Sep 2025*
- Integrated Mediapipe into Unity for high-performance keypoint detection and controller-free interaction.

**GunCat (2D Shooting Game) | Engine Programmer** *Sep 2024 - Apr 2025*
- Developed a custom rendering pipeline from scratch using C++ and OpenGL with custom shaders.
- Engineered high-performance HUD, animation state machines, and menu systems.