

Bishesh Raj Khanal

Kathmandu, Nepal

Objective

Aspiring game developer with a strong background in C++ and SFML, specializing in building engaging 2D games from scratch. Currently expanding skills in 3D game development using Unreal Engine. Eager to leverage skills in game mechanics, problem-solving, and software development in a remote internship role, while balancing academic pursuits.

Skills

Languages: C++, C, Python, C#(Basic)

Technologies: SFML, Unreal Engine, Git, Visual Studio, CMake, GDB

Concepts: Game Loops, Collision Detection, Physics Engines, Dynamic Lighting and Shadows, UI/UX Design, Algorithm Design

Projects

2D Platformer Game: A multi-level game built with SFML. Players shoot, collect coins, and progress through increasingly difficult levels. Focus on physics-based movement, AABB collision detection, and camera systems.

Geometry Shooter: Arcade-style shooting game where players face geometric enemies with random spawn positions. Implemented dynamic enemy AI, bullet mechanics, and a score tracking system.

Top-Down Adventure Game: A top-down adventure game featuring patrolling and chasing enemies, health bars, and dynamic vision-blocking. Focus on AI behavior, dynamic camera and environment interaction.

2D Light Tracer: Simulated real-time 2D light casting with shadows based on obstacles. Users control the light source with the mouse, with dynamic light-shadow interaction.

Texture-Revealing Light Tracer: Enhanced version of the light tracer to reveal only portions of a texture affected by light. Used advanced pixel manipulation and visibility detection techniques.

Education

Kathmandu University

Bachelor of Computer Science, Expected Graduation: 2026

Key Courses: Data Structures, Algorithms, Computer Graphics, Software Engineering

Nepal

2021–2026

Languages

English: Fluent, both written and spoken

Nepali: Native

Interests

Hobbies: Game development, Problem solving, Puzzle games, Fitness, and Hiking

Contact

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GitHub: <https://github.com/Bishesh-Khanal>

Portfolio: <https://bishesh-khanal.github.io/Portfolio/>