

BIDHAN TIMILSINA

Computer Engineering Student & Systems Developer

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PROFESSIONAL SUMMARY

Motivated 2nd-year B.E. Computer Engineering student at Kathmandu University with a strong foundation in systems programming, low-level C/C++ development, and networked applications. Demonstrates strong aptitude in mathematics, algorithm design, and computational problem-solving. Passionate about building architecturally sound, real-world software — from TCP-based peer-to-peer messaging systems to modular game engines. Open to internship, freelance, and collaborative opportunities.

EDUCATION

B.E. Computer Engineering 2024 – 2028

Kathmandu University, Dhulikhel, Kavre

2nd Year · Ongoing

Core Modules: Data Structures & Algorithms · Computer Networks · Operating Systems · Digital Logic · DBMS · Software Engineering · Discrete Mathematics

Focus Areas: Qt/C++ Development · TCP Networking · Systems Programming · OOP · Game Development

+2 Science (NEB) 2022 – 2024

GBS Pokhara, Gandaki Province, Nepal

Completed

SEE — Grade 10 2022

GBS Pokhara, Nepal

Completed

PROJECTS

LAN Messenger 2024

Qt 6 · C++17 · TCP Sockets · QTcpSocket · QTcpServer

- Built a real-time peer-to-peer messaging application over a local area network — no server, no cloud, pure socket communication.
- Designed a custom packet framing protocol supporting sender identity, timestamps, and message types.
- Implemented concurrent connection handling with a non-blocking main thread to ensure UI responsiveness.
- Cross-device tested on a live LAN subnet; resolved race condition between accept() and signal handler.

Game Box — Multi-Game Engine 2024

C++17 · Raylib · Game Loop · OOP

- Developed a modular multi-game engine where each game operates as an independent scene with its own update and render pipeline.
- Implemented a fixed-timestep loop with delta-time interpolation for consistent physics and animation across hardware.
- Engineered a scene manager enabling seamless transitions between games without state leakage.
- Applied OOP composition principles end-to-end, decoupling rendering from game logic for maintainability.

TECHNICAL SKILLS

Languages C / C++ · JavaScript · HTML & CSS

Frameworks & Libraries Qt 6 / QML · Raylib

Networking TCP/IP Sockets · P2P Architecture · Custom Protocol Design

Tools Git · GitHub · Vite · VS Code

Concepts	Object-Oriented Programming · Data Structures & Algorithms · Design Patterns · Game Loops · Discrete Mathematics · Linear Algebra · Algorithm Analysis & Complexity
Operating Systems	Windows · Linux (basic)

ADDITIONAL INFORMATION

Languages	English (Professional) · Nepali (Native)
Strengths	Mathematics · Algorithm Design · Analytical Problem-Solving · Systems Thinking
Location	Pokhara, Nepal (GMT+5:45) — willing to relocate / work remotely
Interests	Systems architecture, game engine design, open-source development, hiking
Portfolio	bidhantimilsina.com.np github.com/Bidhan318

References available upon request · Last updated April 2026