

Sunil Sapkota

Game Programmer | Frontend Developer | Bachelor in Computer Engineering

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in sunxsapk

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📍 Nepal

Work Experience

@Margintop Solutions

Frontend Developer

1.5 years

- Developed many web-applications using ReactJS & NextJS
- Developed 2D & 3D interactive canvas-based apps using ThreeJS, FiberJS, etc
- Collaboration with project managers, designers and backend developers to create best results
- Experience with modern frontend development frameworks and tools

@Robotics Club, Pashchimanchal Campus

Programmer and Executive Member

2 years

- Programmed Embedded System for custom CNC & built path editing tool for it
- Handled frontend of club's website
- Provided training on Embedded Systems Programming

Education

Tribhuvan University

Bachelors in Computer Engineering

2021-2025

Projects

Everest

- Cross-platform Game Engine written in C/C++
- Built core engine library and built a scene editor using that library
- Implemented run-time scripting component using Lua programming language
- Programmed renderer, physics engine, input & event system manager, window manager, etc.

TRVim

- Cross-platform text-editor written in C, built & released for macOS & linux
- Implemented Syntax-highlighting, Split-screen & Buffer-based file editing
- Implemented vim key-bindings, allowing zero-mouse requirements inside editor
- Programmed into non-canonical mode of terminal

Physx-2D

- Programmed 2d-game engine library from scratch in C++ using OpenGL
- Wrote API for Window Management, 2d Rendering, Textures and Shaders usage
- Has built-in Physics System with collision resolution & Rigidbody solver
- Has built-in Entity Component System & Native-Scripting Component

Other Projects

- **EndLess** : A 3d freestyle-flight adventure game, made with Unity
- **Edge-of-Space** : A 2d arcade dashing game, made with unity
- **LibHash** : A C-library for hashmaps
- **TR-ECS** : An archetype-based Entity Component System written in C++

Skills

- *Languages:* C/C++, C#, JavaScript, Python, Shader-Languages (GLSL, HLSL)
- *Game Engines:* Unity
- *Custom-Engine Development:* Engine-Architectures, Game Physics & Math, ECS, Scripting, Rendering Engines, DSA
- *Web Frameworks & Libraries:* ReactJS, NextJS, ThreeJS, FiberJS
- *Other Skills:* 3D Modelling (Blender), Pixel Art & Animation (Asperite)

Achievements & Certificates

- EA Software Engineering Virtual Job Experience Completion Certificate
- 1st Runner up - Code with Coffee 2024
- Executive Member Tenure Completion @Robotics Club, Pashchimanchal Campus