

# Sunil Sapkota

Game Developer | Frontend Developer | Bachelor in Computer Engineering

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in sunxsapk

🌐 sunxsapk.github.io

📍 Nepal

## Work Experience

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### @Margintop Solutions

Software 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

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### Tribhuvan University

Bachelors in Computer Engineering

2021-2025

## Projects

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### 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

### EndLess

- An arcade/adventure 3d freestyle-flight game
- Built using Unity & released on Google Play-store
- Has Endless procedural level generation

### Other Projects

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

## Skills

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

## Achievements & Certificates

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