

Sunil Sapkota

Game Developer | Engine Programmer | Bachelor in Computer Engineering

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📍 Nepal

Work Experience

@Yarsa Labs

Frontend Developer

Working

- Develop new 2D board and card games from scratch.
- Develop new 3D driving and racing games from scratch.
- Fix known bugs in existing games and refactor the existing game.
- Add new features such as new levels and characters to the existing game.
- Make changes to the designs and animations in existing games.
- Modify and use core engine features and packages for custom implementation

@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
- Planning and implementation of projects like CNC, Drone, Micro-mouse, etc.
- Provided training on Embedded Systems Programming

Education

Tribhuvan University
Bachelors in Computer Engineering

Projects

2021-2025

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

EndLess

- 3D flight adventure-arcade game
- Developed assets and designs
- Programmed procedural environment generation into the game
- Built and released the game on Google Playstore

PyAnnotate

- Quick and easy Image Annotation tool made in Python
- Made for usage in handwriting data annotation
- Specialty: Made using Custom UI System written from scratch

Other Projects

- Physx-2D : A 3d game engine library made from scratch in C/C++
- Edge-of-Space : A 2d arcade dashing game, made with Unity and C#
- 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, Physics Engine, UI Engine*
- *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*