

# Regal Adhikari

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📅 2002/07/17

## Profile

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I'm currently a final-year Computer Engineering student at Kathmandu University. I have a passion for software development and love to code. I am a quick learner and always eager to learn new technologies. I have experience in web and mobile development, game development with a strong foundation in game design, and AI-driven mechanics. Skilled in Unity, C#, ReactJs, and machine learning, with experience developing interactive and immersive gaming experiences. Always eager to innovate and bring creative ideas to life.

## Education

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2021 – present  
Kavre, Nepal

### Computer Engineering

*Kathmandu University*

- **Core Topics:** Data Structures & Algorithms, Neural Networks and Deep learning, Artificial Intelligence, Software Engineering, Object-Oriented Programming
- **Mathematics & Theory:** Probability & Statistics, Linear Algebra, Algorithm Complexity
- **Specializations & Projects:** Web Development, Computer Graphics, Embedded Systems, Computer Networks

2014 – 2017  
Kathmandu, Nepal

### SEE

*Paragon Public School*

2018 – 2020  
Kathmandu, Nepal

### +2 Science

*Kathmandu Model College*

## Professional Experience

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07/2023 – 11/2023  
Kathmandu, Nepal

### Game Developer

*Techore Solutions* ☑

- Assisted in creating a website and mobile app with over 25 different games (board games, card games, slots, etc.) along with a team of over 8 developers.
- **Tech Stack:** C#, Node.js, Docker, Unity, GitHub, Agile, Game Logic Programming, Illustrator, Photoshop

## Projects

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### Khoji ☑

*2D exploration RPG taking place in various locations of Nepal featuring a set of minigames*

- Developed a two dimensional game using Unity using C# while crafting the sprite assets using Aseprite.
- **Tech Stack:** Unity, C# programming language, Adobe Illustrator, Aseprite

### World's Hardest Game Solving AI Bot ☑

*Solving the World's Hardest Game using Reinforcement learning*

- 2D game made with pygame library having two sections:

- Play by yourself where you navigate the difficult levels and reach to the goal
- Train AI using RL to solve the game and reach the goal by itself
- **Tech Stack:** Python, Pygame, Reinforcement Learning, TensorFlow, GitHub, Aseprite, Illustrator

### LearnR

- Full Stack webapp allowing users to post and view articles, books, etc. The backend was handled using Express whereas the database was handled by MongoDB
- **Tech Stack:** html, css, javascript, NodeJS, React, Express, MongoDB, GitHub, TailwindCSS

### GunSlinger - A 3D Unity game

*3D FPS Run n Gun game made using Unity and Blender*

- First Person Shooter created in Unity featuring hand crafted models made in Blender.
- **Tech Stack:** Unity, C#, Blender, Illustrator, GitHub

### PDF-Answer-Retriever

*AI PDF reader mobile app including features like OCR for document scanning*

- AI integrated problem solving mobile app where you upload your PDFs and ask questions specific to the PDF.
- Also integrated OCR which allowed the users to scan the document via their camera and retrieve the text in real-time.
- **Tech Stack:** Langchain, Hugging Face, TensorFlow, pytesseract, Flask, OpenCV, Flutter

## Skills

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### Game Development

Unity, Pygame, Godot, Unreal Engine, C, C++, C#, GDScript

### AI and Machine Learning

Python, Matplotlib, Numpy, Seaborn, TensorFlow, Scikit-learn, Keras, Pytesseract, Scikit-Learn, Pandas

### Database Management

SQL, MySQL, MongoDB

### Web Development

html, css, typescript, React, NodeJS, Express, NextJs

### Mobile app development

Dart, Flutter

### Tools & Technologies

Git, GitHub, Postman, Slack, Draw.io

## Mini Projects

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### Voxel Engine

*An interactive and visually compelling voxel-based game engine utilizing modern graphics technologies and efficient programming techniques. Made using Pygame for window management and user input, coupled with OpenGL for rendering.*

### 8085 Microprocessor program

*Implementation of a 8085 microprocessor program to find the smallest of two 8-bit numbers.*

### C Radiant

*A text based story RPG game created in C using OOP concepts.*

### NoSQL Database Implementation

*Neo4j*

### Dairy Farm Economic Overview

*Documentation of a dairy business plan located in Panauti.*

### PIR Sensor Based Closed Loop System

*A closed loop system controlling the running of the motor and lighting of the led.*

## 16-bit Computer

### Courses

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**The Ultimate MySQL Bootcamp Go from SQL Beginner to Expert** [↗](#)

*Udemy*

**C# Intermediate: Classes, Interfaces and OOP** [↗](#)

*Udemy*

**Level up your C# and Unity knowledge and create your very own Action-Shooter** [↗](#)

*Udemy*

**Deep Learning Advanced Computer Vision (GANs, SSD, +More!)**

*Udemy*

**Master UNO Game Development: Build with Unity & C#** [↗](#)

*Udemy*

### Languages

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• English

• Nepali

• Hindi

### Interests

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**Playing Video Games** [↗](#)

Feels good whenever I put some time playing games.

**Playing Guitar**

I'm rediscovering the long lost passion for playing guitar.

**Singing**

I enjoy singing.

**Creating Artwork**

I like sketching and drawing. I'm currently interested in creating video game art.

**Wathing Series/ Movies**

I like watching series, especially anime series and movies