Hari Krishna Khuju

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SUMMARY

I am an enthusiastic Computer Engineering graduate from Khwopa College of Engineering, driven by a deep passion for game development and interactive systems. With a strong foundation in C++, Python, Unity, and software engineering. I have built games and real-time systems that merge creativity with performance. My hands-on experience spans both academic and personal projects, including developing games using Pygame and working with real-time face tracking systems. I am eager to grow in the gaming industry—contributing to game mechanics and cross-platform development for PC and mobile. My goal is to build immersive and innovative experiences that engage and inspire players.

SKILLS

Technical Skills:	Python, C++, MySQL, JavaScript, HTML, CSS, Laravel, Rest API, Git, GitHub, Unity Engine
AI and Machine Learning:	Deep Learning, Machine Learning, Diffusion Model

IMPACTFUL PROJECTS

Run Till the Dusk – Side-Scrolling Obstacle Dodging Game

- Developed an endless-runner style platformer using Unity Engine and C#.
- Engineered dynamic jump mechanics, custom ground detection, and responsive collision handling.
- Integrated animated transitions, audio feedback, and particle effects to elevate gameplay feel.
- Built a clean game-over system with UI triggers and scene restart flow that resets physics state.
- UnityPlay: https://play.unity.com/en/games/130ec27e-bc28-4fdf-a2d2-c40a97b7880e/webversion

Get Off My Void – Wave-Based Space Knockout Game

- Designed a physics-based arena challenge set on a space platform with progressively spawning ball waves.
- Engineered platform-based survival mechanics with enemy wave spawning, scoring logic, and force-based knockback.
- Integrated stylized visual effects using Unity's material and shader systems for a cosmic aesthetic.
- Implemented coroutine-based timers and interactive power-up stacking for strategic gameplay boosts.
- Created responsive UI transitions for wave announcements and active gameplay feedback.
- UnityPlay: https://play.unity.com/en/games/61b161ca-96eb-4c12-9160-7980df9b9294/get-off-my-void

Snow Sokoban – Winter Themed PuzzleGame

- Reimagined the classic Sokoban gameplay with a winter visual style and themed tilemaps.
- Developed grid-based movement, crate pushing mechanics, and tile detection using Unity.
- Designed progressively challenging levels with frozen blocks, snow-covered floors, and aesthetic UI.
- Built a clean game-over system with UI triggers and scene restart flow that resets physics state.
- UnityPlay: https://play.unity.com/en/games/f4e7f400-b405-47a4-94fe-cde49348ce31/snow-sokobon

Flappy Bird Clone – Physics-Based Arcade Game

- Recreated the classic Flappy Bird experience using Unity and C#, focusing on precise physics and responsive controls.
- Implemented player flight logic using Rigidbody-based vertical impulse and gravity-based descent.
- Developed dynamic obstacle spawning, collision detection, and a looping background system for endless gameplay.
- Designed scoring logic with UI updates and game-over triggers based on pipeline collisions.
- UnityPlay: https://play.unity.com/en/games/6d1a3ceb-ac09-4370-94f5-dea7faac8673/go-go-flappybird-go

Snake Game

- Developed a classic Snake game using Python and Pygame, demonstrating proficiency in game development fundamentals.
- Implemented real-time game loop logic with smooth user input handling and frame-based updates.
- Added collision detection between the snake, food, and screen boundaries to manage game-over conditions.
- Features include growing snake body, increasing speed, and high score tracking.
- Designed a modular and readable code structure, making it easy to extend or refactor in the future
  GitHub: github.com/harikrishnakhuju/snake

Facial Recognition along with Real-time tracking using Deep Learning

- Developed a Facial Recognition along with Real-time tracking using LFW(Labelled Faces in the Wild) datasets.
- Performed data-augmentation for the improvement of the dataset for variety of faces.
- Pairing of the positive and negative pair of datasets for training the Siamese model.
- Employed collaborative filtering, a Deep learning technique, to build a Facial Recognition model.
- Document the program that take face image of the user and save them as recognized faces and perform the recognition using device camera and tracking their face with bounding box around face.
- GitHub: github.com/harikrishnakhuju/BCTMinorProject

Ransomware Detection in encrypted networks using Machine Learning

- Conducted an in-depth analysis of ransomware in encrypted network traffic for detecting harmful activity within encrypted payloads.
- Explored and custom-made dataset, cleaned and utilized data preprocessing techniques to enhance data quality and reliability for accurate analysis.
- Leveraged Exploratory Data Analysis (EDA) to extract meaningful patterns, trends, and correlations from the dataset.
- Employed statistical analysis and data visualization to identify behavior of the Ransomware traffic flow.
- Employed collaborative filtering, a machine learning technique, to build a Ransomware Detection model.
- Documented the program that run CLI-based, making it suitable for integration into firewalls or other security systems.
- GitHub: github.com/harikrishnakhuju/RANSOMWARE

MeroJobSathi – Job Search & Posting Platform

- Built a full-stack job portal using Laravel, PHP, MySQL, and Tailwind CSS.
- Implemented secure user authentication with role-based access for employers and job seekers.
- Developed dynamic job search, job posting, and employer-job relationship management features.
- Used Laravel factories and seeders to generate realistic test data.
- GitHub: github.com/harikrishnakhuju/MeroJobSathi

EDUCATION

2021 - 2025 Bachelors of Computer Engineering: Khwopa College of Engineering (Tribhuvan University)
2018 - 2020 High school degree: Major in Computer Science at Bagiswori Secondary School