Harsh Khanna

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LinkedIn| Codeforces | Leetcode

PROFILE

Enthusiastic and fast-learning individual with a strong foundation in competitive programming and practical experience in machine learning. Passionate about solving complex problems, writing efficient code, and continuously expanding technical skills. Seeking opportunities to contribute to innovative projects while growing as a developer and researcher..

EDUCATION

CHANDIGARH UNIVERSITY
B.E. in Computer Science
Grad. May 2027 | CGPA : 7.7/10

RSM INTERNATIONAL
SR. SEC. school , Jodhpur
12th - PCM
Grad. March 2022
Percentage: 84.2

MAHAVEER PUBLIC SCHOOL
SR. SEC. school
10th (CBSE) |
Grad. March 2020
Percentage: 93.2

COURSEWORK

Design and Analysis of Algorithms
Object Oriented Programming
Data Structure
R-DBMS
Mathematics I , II
React
Operating System
Academic Writing and IPR

TECHNICAL SKILLS

Programming:
• C++ , C , Java
• Python , HTML, CSS, JS • Numpy , MatplotLib , Machine Learning

Tools:
• Git, MySQL
• VS Code, Excel

INTERPERSONAL SKILLS

•Time Management
•Writing, Public Speaking
•Leadership
•Teamwork

PROJECTS

AI-POWERED SNAKE GAME – PYTHON TURTLE GRAPHICS
Python, Turtle Graphics, Reinforcement Learning, NumPy, Matplotlib

- - Developed a fully functional Snake game using Python's Turtle module for graphics and gameplay mechanics
- Designed and implemented an AI agent capable of autonomously playing the game using a trained model
- - Trained the AI using reinforcement learning techniques to optimize movement and maximize score
- Integrated the AI with the game loop to enable real-time decision-making and adaptive gameplay
- Handled collision detection, dynamic food generation, and score tracking within the game environment

GESTURE-CONTROLLED GAME CONTROLLER – COMPUTER VISION ML
Python, OpenCV, Scikit-learn, PyAutoGUI

- Designed and implemented a gesture-based game controller using webcam input and machine learning.
- Captured and labeled hand gesture data to map actions like move, jump, shoot, and pause to specific gestures.
- Trained a classification model using OpenCV and Scikit-learn to recognize gestures in real-time with high accuracy
- Integrated the gesture recognition system with game logic to control gameplay without physical button.

ACHIEVEMENT

• Codeforces (Max. Rating 1419) | [Link]
• Achieved University **Rank 7** in AMCAT 2025.
• **Won district level and State Level (quarter finals) Table Tennis U - 19 Competition**

CERTIFICATES

• **Coursera - Andrew NG's Machine Learning Speicializatoin**
• **Coursera - Andrew NG's Deep Learning Specialization**
• **NPTEL - Cloud Computing Cerificate**

POSITION OF RESPONSIBILITY

• Team Leader 2nd Position in coding event oraganized by CU in collaboration with CodeChef | Aug. 2025
• Team leader of finalist team of university levele coding event AlgoArena | Aug 2025