

HIMANSHU RAWAT

📞 +91 8923196771 ✉ himanshu004@gmail.com [🌐 LinkedIn](#) [🐙 Github](#)

Objective

Aspiring Software Engineer with a strong foundation in **data structures, algorithms, and full-stack development**. Passionate about building scalable software solutions and eager to contribute to innovative projects. Looking to leverage academic knowledge and project experience to grow as a **Software Engineer**.

Education

Graphic Era Hill University, Dehradun <i>B.Tech in Computer Science and Engineering</i>	2022 – 2026 <i>CGPA: 7.6/10</i>
Kendriya Vidyalaya ITBP, Dehradun, Uttarakhand <i>10th: 87% — 12th: 86%</i>	2019 – 2022

Projects

Page Replacement Algorithm Simulator(MERN STACK)	Source Code
<ul style="list-style-type: none">Built an interactive web-based simulator for OS Page Replacement Algorithms (FIFO, LRU, MRU, Optimal) to aid in learning memory management concepts, helping 100+ students improve understanding by 80%.Implemented real-time simulation and visualization of page hits and faults using dynamic charts (Pie and Bar graphs), reducing manual calculation time by 70%.	

Handwritten Digit Recognition using MNIST Dataset	Source Code
<ul style="list-style-type: none">Developed an artificial neural network classifier for recognizing handwritten digits which was trained and tested using MNIST dataset giving 98% accuracy, classifying 10,000+ test images.Implemented a Convolutional Neural Network (CNN) using TensorFlow & Keras to achieve high accuracy, improving baseline ANN accuracy by 5%, Deployed the model using Flask	

URL Shortener Web App	Source Code
<ul style="list-style-type: none">Built a Flask-based web app that generates short links from long URLs using randomly generated 6-character codes.Implemented redirection routing and input validation for secure and functional user experience, reducing invalid inputs by 40%.	

Web-based C Code Compiler	Source Code
<ul style="list-style-type: none">Built an online web-based C compiler with a clean and simple UI for writing, compiling, and running C programs directly in the browser, Collaborated with a 3-member team using Git and modular code architecture.Developed the backend in C++ and created the frontend using React.js, providing real-time output, multi-file support, error detection, and syntax highlighting for a better coding experience.	

Pose Detection Fitness App	Source Code
<ul style="list-style-type: none">Built a real-time fitness app using MediaPipe and OpenCV to detect squat posture with 95% accuracy.Added a repetition counter with instant feedback to ensure correct form, increasing workout tracking efficiency by 50%. Supporting other exercises like push-ups and jumping jacks, enabling 3+ exercise modes.	

Technical Skills

Languages: Java, C/C++, Python, JavaScript

Backend: Node.js, Express.js, PHP

Frontend: React, TailwindCSS, HTML, CSS, Bootstrap

Clouds & Databases: MongoDB, SQL, Firebase

Web Technologies: WebSockets, API Integration, RESTful Services, VS Code, GitHub, Vercel/Netlify

Core CS Subjects: Data Structures & Algorithms, OOP, DBMS, OS, Computer Networks

Software Practices: Agile Methodologies, Git, Debugging, Unit Testing

Machine Learning: TensorFlow, Keras, Convolutional Neural Networks (CNN)

Achievementt/Responsibilities

- Solved **150+ problems** on **LeetCode/HackerRank**, focusing on algorithms and data structures.
- Manager** - Managed a club with **800+ members**, overseeing operations and engagement.
- Collaborated with peers on group projects using **Git** for version control.