Ritik Sharma

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SKILLS

• **Languages**: C++, Python, R

• Frameworks: Scikit-learn, TensorFlow, PyTorch, Keras, Pandas, Numpy, Matplotlib,

• Tools/Platforms: Google Colab, Jupyter NoteBook

• **Soft Skills**: Time management, Patience, Adaptability, Multi-tasker

PROJECTS

Vision-Driven Real-Time Vehicle Tracking System

Feb 2025 – April 2025

Developed a real-time vehicle tracking system using YOLOv8 to detect and track vehicles across video frames. The system performs lane-wise vehicle counting and classifies traffic intensity based on vehicle density, supporting traffic surveillance and congestion analysis in smart cities. It was optimized for speed and accuracy to function in real-time scenarios using live or recorded feeds.

Tech: Python, YOLOv8, OpenCV, Computer Vision

Machine Translation

Sept 2024 - Nov 2024

Built a machine translation model to translate text from one language to another using Natural Language Processing (NLP) techniques. This project focuses on tokenization, sequence modeling and translation accuracy improvement. **Tech**: Python, NLTK, TensorFlow, Transformer Model, Seq2Seq, Language Processing

Library Management System

June 2024 – July 2024

Developed a Library Management System using C++ and DSA that streamlined book tracking by 20%, resulting in a 15% increase in library user satisfaction. Implemented features for book management, issuance/return and due date tracking.

Tech: C++, Data Structures & Algorithms, File Handling.

Trainings Link

• C++ Training Program

Jan 2025 – Feb 2025

Conducted by Hitbullseye through the University

- **Covered topics**: Object-Oriented Programming (OOP), Pointers, Data Structures, Algorithms, and Advanced C++ Concepts.
- Hands-on coding practice and problem-solving.
- Data Structure & Algorithm

June 2024 - July 2024

Conducted by Board Infinity through the Self-Paced

• Covered topics: Arrays, Linked List, Stacks, Queues, Hash Tables, Trees, Graphs, Tries.

Covered Algorithm: Sorting Algorithms, Searching Algorithms, Recursion and Backtracking, Dynamic Programming, Greedy Algorithms, Divide and Conquer, Graph Algorithms, String Algorithms.

Hands-on coding practice and problem-solving.

CERTIFICATES LINK

Problem Solving (Basics) Hackerrank	November 2024
Social Network Analysis NPTEL	July 2024 – October 2024
• Build AI Apps with ChatGPT, Dall-E, and GPT-4 Coursera	January 2024 – May 2024
• Dynamic Programming Greedy Algorithms Coursera	January 2024 – February 2024
• C++ Programming NeoColab	August 2023 – January 2024
Data Structure and Algorithms NeoColab	August 2023 – January 2024
Data Structure and Algorithms NeoColab	August 2023 – January 2024
Python (Basics) Hackerrank	February 2023

EDUCATION

Lovely Professional University

Bachelor of Technology - Computer Science and Engineering; CGPA: 6.9

High School Udkagaon

Intermediate; Percentage: 76.2%

High School Uchkagaon

Matriculation; Percentage: 78.2%

Punjab, India

September 2022 - Present

Gopalganj, Bihar April 2019 – April 2021

Gopalganj, Bihar March 2018 - March 2019