

# Riyanshi Goyal

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Jaipur, India

## Education

**Indian Institute of Technology (IIT), Bhilai**

Bhilai, India

BACHELOR OF TECHNOLOGY IN COMPUTER SCIENCE AND ENGINEERING

**Nov 2020 – Present**

CGPA: 8.69/10.0

**India International School, Jaipur**

Jaipur, India

12th class board exams: 94.4% | 10th class board exams: 94.6%

**April 2020**

## Skillset

- Python | JavaScript | C++ | C | SQL | HTML | CSS | React | Node.js | MongoDB | Express.js | jQuery
- Git | Linux | Shell scripting | MySQL | Latex | NLTK | Numpy | Pandas
- Data Structures and Algorithms | Frontend | Backend | Natural Language Processing | Machine Learning

## Experience

**Research Intern - TCS**

**Noida, India**

**May 2023 - June 2023**

- Conducted in-depth analysis of large language models, specifically ChatGPT, on various mental health datasets sourced from Reddit and proposed different prompting strategies and fine-tuning to increase the accuracy of automated mental health analysis tasks by 20%.
- Applied natural language processing techniques like topic modeling using LDA and K-means clustering, to enhance the performance and accuracy of the system.

## Projects

**CAMPUS DELIVERY SYSTEM**

<https://campdelrasp.vercel.app/>

[Github code](#)

**Jan-Feb 2024**

- Developed a comprehensive full-stack food delivery service as a component of the Computer System Design course as a group project.
- Deployed a microservice architecture along with optimizations like caching and load balancing, to enhance performance and scalability.
- Integrated features including chatbot and recommendation system to enhance user experience.
- Tech Stack – Reactjs, Nodejs, Firebase, MongoDB, Docker, Python, Redis Cache

**TIC-TAC-TOE: MULTI AGENT REINFORCEMENT LEARNING** [Tic-tac-toe-game](#)

**Nov 2023**

- Implemented a Tic Tac Toe game with using Q-learning and MCTS algorithms for adaptive gameplay.
- Developed an intuitive user interface for human-computer interaction.
- Tech Stack: Python, RL, Numpy, Tkinter

**QUERY CHATBOT** [chatbot](#)

**Nov 2022**

- Developed an interactive chatbot tailored for addressing real-time queries pertaining to IIT Bhilai using Natural Language Processing to ensure accurate understanding and interpretation of user queries.
- Tech Stack: Python, TensorFlow, NLTK, NumPy, Keras, Tkinter

**DIABETIC RETINOPATHY DETECTION** [Diabetic-retinopathy-detection](#)

**Nov 2022**

- Implemented a Machine Learning algorithm to automate the detection and grading of diabetic retinopathy and diabetic macular edema using retinal fundus images.
- Utilized Convolutional Neural Networks as the foundation of the proposed model and achieved successful results, demonstrating the potential for the model to assist in the early diagnosis and treatment of diabetic eye diseases.
- Tech Stack: Python, TensorFlow, CNN, Keras

## Extracurriculars

- Mentor - Student Mentorship Program
- Part of Web Development Team – Meraz'22 - Techno Cultural Fest of IIT Bhilai.
- Core member of the Dance Club, IIT Bhilai and participated in the Inter-IIT Cultural Meet 2022, representing IIT Bhilai in group dance.
- Volkswagen i.mobilathon 3.0 – Pre Final round

## Courses

- Data Structures and Algorithms
- Computer Networks
- DBMS
- Natural Language Processing
- Operating Systems
- Machine Learning
- Computer System Design