

# DIVYANSHU PRAKASH

[Codeforces](#) [Codechef](#) [Leetcode](#) [Github](#)

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## Education

### Indian Institute Of Technology (IIT), Bhilai

B.Tech(Honors)-Mechatronics Engg. (Computer Science Engg)

CGPA - 8.66

October 2022 - May 2026

### R.P.S. School

Senior Secondary Education

Grade - 92%

May 2020 - April 2022

## Technical Skills

**Languages:** C++ (Proficient), Python(Proficient), C, Javascript, SQL

**Web Stack:** Flask, Node.js, React.js, MongoDB

**ML/AI:** NumPy, Pandas, Matplotlib, Scikit learn, RAG, OpenCV, Computer Vision

**Developer Tools:** Git, Docker, Github Actions

**Core Skills:** Data Structures and Algorithms, Machine Learning, Deep Learning, Object-Oriented Programming (OOP), Operating Systems, Computer Networks, Linux, Database Management Systems

## Internship

### AI & Data Science Intern — Assurant — [Certificate](#)

May 2025 – July 2025

- Developed simulation components for a **digital twin** system using **Isaac Sim** to replicate real-world workflows.
- Integrated **Python-based simulation logic** with 3D environments to visualize claim lifecycle and customer journey.
- Worked with **OmniGraph**, **USD**, and **Omniverse Kit** APIs to build and control dynamic simulation flows.
- Built data-driven logic using **CSV ingestion**, state machines, and **backend-controlled parameter updates**.
- Collaborated with **cross-functional teams** to align simulation goals with business processes and analytics use cases.
- Focused on **AI-driven decision support**, **predictive modeling**, and **real-time simulation accuracy**.

### AI/ML Intern - IBITF — [Certificate](#)

May 2024 – July 2024

- Project:** Automated Recognition and Packaging System for Grocery Items
- Built a **computer vision system** using **YOLOv8** to recognize **50+** fruit and vegetable types with **85%** accuracy, improving retail automation and checkout efficiency.
- Employed **SAM AI**, **DINO AI**, and **Roboflow** for dataset segmentation, labeling, and annotation.
- Developed a **Python Tkinter GUI** for seamless management, with backend support from a **MySQL database** for transaction tracking and data integrity.

## Projects

### Krishi AI: Precision Agriculture for Plant Health | *Python, Pytorch, YOLO-v5*

[Deployment](#) [GitHub](#)

- Constructed a Deep Learning Model: Built a plant disease detection system Fine-Tuning YOLOv5 on custom dataset.
- Leveraged the novel DFN (Deep Fusion Network) architecture to enhance feature extraction and classification.
- Processed 26 GB plant dataset for training, ensuring robust model performance across diverse environmental conditions.
- Achieved 99.14% accuracy, closely matching state-of-the-art results (99.6%) from recent research.

### Sci-Tech Website | *ExpressJS, ReactJS, NodeJS*

[Deployment](#) [GitHub](#)

- Developed and deployed a Scitech website for IIT Bhilai clubs with a modular design system, enabling smooth online registrations, real-time activity updates for 200+ participants weekly, and reducing development time by 30% while equipping 15+ developers with consistent, reusable components.

## Achievements and Activities

- Specialist(1569)** rated at Codeforces.
- Achieved a **3-star (1717)** rating, ranking in the top 0.86% of active users in India on Codechef.
- Team Leader in Inter IIT Tech Meet 2024, Mid Prep 1 (Dream 11 ML model prediction)
- Participated in Dark Pattern Buster Hackathon 2023 - ([Certificate](#))
- Secured 4th rank in the Ingenuity Individual Programming Contest at the college level.

## Leadership / Extracurricular

### Team Leader | *Mid Prep 1, Inter IIT Tech Meet 2024*

Dec 2024

- Led a team of 6 to develop a Dream11 solution, engineered GRU & XGBoost models (95% accuracy), and crafted React-Flask UIs for model insights and live predictions.

### Core Member | *Ingenuity, Competitive Programming Club*

May 2024 - May 2025

- Led a bit manipulation workshop (50+ students, 90% satisfaction), mentored 200+ in Competitive Programming, and organized 10+ workshops/contests to foster CP culture.

### Core Member | *Openlake, Opensource Development Club*

May 2024 – August 2024