

PRACHI

ACADEMIC PROFILE

Degree/Certificate	Institution	Percentage/CGPA	Year
B-Tech	Computer Science and Engineering IIT (BHU), Varanasi	6.25	2026
CBSE (XII)	Kendriya Vidyalaya Paschim Vihar	76.40	2022
CBSE (X)	Kendriya Vidyalaya Paschim Vihar	92.40	2020

SKILLS

- **Languages-** C++, C, Python, MySQL, Bash
- **Technologies-** Django, NumPy, Pandas, Reinforcement Learning, HTML, CSS
- **Interests-** Competitive Programming, Web Development, Data Structures and algorithms, Machine Learning
- **Relevant Courses-** Data Structures and Algorithms, Database Mangement System, Computer System Organization, IT Workshop-I (Bash and Python), IT Workshop-II (Django and SQL), Operating Systems, Artificial Intelligence, Intelligent Computing, Computer Graphics, Computer Architecture, Theory of Computation, Software Engineering.
- **Soft Skills-** Public Speaking, Decision Making, Effective Communication, Team Work, Effective Management

PROJECTS

Hospital Mangement System (Spring Boot)

Aug 2024 - Nov 2024

under the supervision of prof. Ravindranath Chowdary

-Built a web-based Hospital Management System to streamline administrative and operational processes in healthcare settings. Integrated a DBMS backend using JDBC and developed the application using Spring Boot.

-**Features:** User authentication (Login/Register), Patient and Doctor Management, Appointment Scheduling, Billing, and Reports with CRUD functionality.

- **Technologies:** Spring Boot, JDBC, MySQL, HTML, CSS, JavaScript, Java

Breast Cancer Detection (Machine Learning)

Aug 2024 - Nov 2024

under the supervision of Prof. Pratik Chattopadhyay

-Developed a machine learning model to detect breast cancer using thermal imaging and genetic algorithms for feature selection and optimization. The project utilized image preprocessing and advanced classification techniques to enhance diagnostic accuracy.

-**Features:** Image preprocessing (noise reduction, segmentation), feature extraction using thermal data, optimization using genetic algorithms, and classification.

-**Technologies:** Python, OpenCV, NumPy, Scikit-learn, Genetic Algorithm, Thermal Image Processing

Analysis of Better Reward System- Reinforcement Learning

Jan 2024 - May 2024

under the supervision of prof. Lakshmanan Kailasam

- Led a project using Q-learning to optimize reinforcement learning models. Discovered that penalized reward systems outperform goal-based ones.

- Experimenting with different reward systems for accurate and more safe results.

- **Exposure:** Reinforcement Learning, Gymnasium environments.

Discourse Platform (Django)

Aug 2023 - Nov 2023

under the supervision of Prof. Amrita Chaturvedi

- Built a Python-based Debate App to facilitate open discussions on social issues. Created a dynamic web application with real-time chat, Convenient Navigation, profile customization using Django, MySQL, HTML, CSS, and JavaScript.

- **Features:** Login, Register, Debate Rooms, Search and other forms of Navigation, Home, Recent Updates, Profile Customization all with proper CRUD functionality.

- **Technologies:** Django, Django REST framework, MySQL, HTML, CSS, JavaScript, Python

Arduino based smart shopping cart (IoT)

Aug 2023 - Nov 2023

under the supervision of prof. Sanjay Kumar Singh

- Developed an RFID-based automatic shopping cart integrated with a billing system to enhance the traditional grocery shopping experience by automating item scanning and billing processes.

- **Components:** Arduino Uno, 16x2 LCD Display (12C), 4x4 Matrix Keypad, MFRC522 RFID Reader and Tags, Buzzer.

- **Technologies:** Arduino IDE, C language.

- **Libraries:** LiquidCrystal_I2C, MFRC522, LCD03, Keypad.

CERTIFIED COURSES

- Python and Artificial Intelligence course by AWS, GDSC, Microsoft Learn & Devtown.
- C++ and DSA course by CodeChef.
- Backend Web Development course by AWS, GDSC, Microsoft Learn & Devtown.
- Frontend Web Development course by AWS, GDSC, Microsoft Learn & Devtown.

POSITION OF RESPONSIBILITY

- **Induction Mentor, Student Counselling Services**

Served as an Induction Mentor, ensuring a smooth and welcoming transition for freshers during their initial days.

HONOURS AND ACHIEVEMENTS

- Rank 15825 in JEE-Advanced 2022 - among more than 2L selected candidates.

EXTRA-CURRICULAR ACTIVITIES

Certificate of Participation

- Participated in Round 1 of EY Techathon 4.0 by EY(Ernst & Young).
- Participated in Quiz of Flipkart Runway: Season 4 by Flipkart.

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