Rakesh Sankhla

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Academic Qualifications

Year	Degree/Certificate	Institute	CPI/%
2020 - Present	B.Tech	Indian Institute of Technology Kanpur	7.03/10
2019	RBSE(XII)	Apna Vidhyalaya Sr. Sec. School, Jodhpur	98.60%
2017	RBSE(X)	Apna Vidhyalaya Sr. Sec. School, Jodhpur	90.33%

Scholastic Achievements

- Secured the prestigious **Rank 1** position in my home district, Jodhpur, for the Class **12th Board Examination 2019**
- Secured **All India Rank 9554** in **Joint Entrance Exam (JEE) Advanced 2020** among the 1.6 Lakh candidates
- Secured **All India Rank 11084** in **Joint Entrance Exam (JEE) Main 2020** among the 8.5 Lakh candidates

Key Projects

Personalised Notes Management App | *Udemy*   ⌂ (*May'23-July'23*)

- Developed a sophisticated **MERN-stack** note-keeping app with **user authentication** and **RESTful API** architecture
- Implemented user authentication with **JSON Web Token encryption** and **bcrypt hashing** to maximize data security
- Designed dynamic user interface via **React** and **Material-UI**, enabling fluid notes creation, modification and deletion
- Managed **MongoDB Atlas** integration for cloud storage, facilitated frontend-backend coordination using **Axios** and **CORS**

Portfolio Project | *Self-Project*   ⌂ (*May'23-July'23*)

- Developed a visually engaging portfolio website using **React**, **Node Js**, and animations for an enhanced user experience
- Implemented dynamic contact form with input validation and **Nodemailer** module integration for sending real-time emails
- Incorporated **light and dark mode theme**, integrating npm modules for seamless scrolling and user-friendly notifications

AI Image Generation App | *Self-Project*   ⌂ (*May'23-July'23*)

- Developed a dynamic Full stack MERN application for image generation and community sharing using ReactJS and ExpressJS
- Integrated OpenAI's DALL-E model for user **prompt-based image generation** and **Cloudinary** for image storage
- Created responsive UI with **Tailwind CSS**, integrating community posts display, intuitive search, and image downloads

Laptop Price Predictor | *Self-Project*   ⌂ (*June'23 - Aug'23*)

- Utilized ML techniques, **Gradient Boosting** & **Random Forest**, for laptop price prediction with **R2(0.88)** & **MAE(0.16)**
- Leveraged user-provided specifications to accurately estimate laptop prices using a robust model built with **Scikit-Learn**
- Demonstrated strong model performance, showcasing a high degree of price prediction accuracy and predictive power

Image Enhancement | *Course-Project EE604*   ⌂ (*Aug'23 - Sept'23*)

Mentor : Prof.Tushar Sandhan, Dept. of Electrical Engineering, IIT Kanpur

- Developed and implemented a **bilateral filter** utilizing the **NumPy library**, enhancing image processing capabilities
- Optimized the bilateral filter algorithm utilizing NumPy's array operations to accelerate **image filtering processes**
- Conducted testing and validation of the bilateral filter, ensuring accurate **noise reduction** while preserving image edges

Technical Skills
Exposure

Languages	C/C++, Python#, HTML5, CSS, JavaScript, SQL, MATLAB#
Utilities and Libraries	ReactJS, NextJS, NodeJS, ExpressJS, MongoDB, Git, GitHub, Bootstrap, NumPy
Software and Tools	VS Code, Postman, Studio 3T, Jupyter Notebook, MS Excel, MS Office Fusion360, Micro-Cap

Relevant Courses
* Online,# Ongoing

Computational methods in engineering	Fundamentals of Computing	Applied Probability and Statistics
Linear algebra and Differential Equations	Introduction to Electronics	Real Analysis and Calculus
Data Structure and Algorithm*	Image Processing#	Full Stack Web Development*

Position Of Responsibility

Organizer, Events in UDGHOSH'22 Team —Sports Festival IIT Kanpur   (*Jul'22 - Nov'22*)

Leadership	• Led a **3-tier** team of **80+** students responsible for organizing **formal** and **informal events** during the fest • Contacted more than 150 referees for 15 different sports from Uttar Pradesh sports organisation
Initiatives	• Initiated **Udaan**, a social initiative for **specially-abled students** with the help of the **CDAP community** • Organized **UNOSQ, Poker, Chess,** and **E-sports events across** the **country** with **5000+ participants**
Impact	• Successfully hosted the indigenous sport **Badminton** for **3 days**, with the participation of **30+ institutions** • Increased the digital reach of the festival by **30%**, through our best sports events and **pre-fest competitions**

Extra curricular

- Took part in the **Survey Camp**, leading a 5-member team in creating a detailed topographic map of **Arogyadham Chitrakoot**
- Led and effectively managed a cricket team while actively participating in Hall-2's intra hall cricket championship
- Participated actively in various online competitive programming competitions held on platforms like **Codeforces** and **Codechef**
- Actively participated and made substantial contributions to **SnT-Code**, a inter-hall event hosted at IIT Kanpur in 2022
- Received **Student of the Year** award from **LIC** during Class VIII, highlighting exceptional academic performance