# Hemant Singh Meena

Final Year Undergraduate

Department of Civil Engineering, IIT Kanpur

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# ACADEMIC QUALIFICATIONS

Year	${f Degree/Certificate}$	Institute	CPI/CGPA/%
2020 - Present	B.Tech, Civil Engineering	Indian Institute of Technology, Kanpur	7.1/10
2020	CBSE Sr. Secondary (XII)	Kendriya Vidyalaya No.3, jaipur	81.2%
2018	CBSE Secondary (X)	Kendriya Vidyalaya No.3, jaipur	88%

#### KEY PROJECTS

#### Dynamic Video Hub: MUI Design, YT API Integration | Self-Project

(May'23-July'23)

- Immerse in captivating UI designs created through React's dynamic capabilities and Material-inspired aesthetics.
- Effortlessly fetch content with **Axios**, integrating **YouTube API via RapidAPI** for smooth and seamless content discovery.
- Achieved Uninterrupted and sleek video playback with "react-player" and user-friendly navigation via "react-router-dom".
- Simplify development using "react-scripts" for a Slick and harmonious video exploration experience with modern features.

## Dynamic Web Portfolio | Self-Project

(May'23-July'23)

- Crafted dynamic web portfolio with HTML5, CSS3, and JavaScript, utilizing Bootstrap and Font Awesome icons.
- Implemented captivating interactive elements and engaging background animation, enhancing the modern user experience.
- Integrated dynamic contact form with input validation and **FormSubmit** integration, facilitating real-time email communication.

### Laptop Price Predictor | Self-Project

(Aug'23

- Utilized ML techniques, Gradient Boosting and Random Forest, for laptop price prediction with R2(0.88) and 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.

### Fake news classifier using NLP | Self-Project

(May'23-July'23)

- Used Natural Language Processing (NLP) for pre-processing and harnessed Regular Expressions for classifying the news.
- Implemented a Decision Tree Classifier, utilizing TF-IDF for textual features, and achieved an impressive 88% accuracy.
- Deployed an NLP model, saved the TF-IDF Vectorizer, and trained the model using Pickle for news reliability prediction.

# **DeCAPTCHA** | Course Project, Introduction to Machine Learning (CS771)

**(** (May'23-July'23)

Mentor: Prof. Purushottam Kar, Dept. of Computer Science & Engineering, IIT Kanpur

- Devised and optimized algorithm to accurately identify the parity of hexadecimal numbers extracted from image inputs effectively.
- Utilized libraries like OpenCV, NumPy, and Pickle for efficient image preprocessing and feature extraction tasks.
- Developed custom Support Vector Machine(SVM) model from scratch for odd/even classification, evaluated model fitness.

# Connecting the First Search | Self-Project

**?** (Aug'23)

- Enhanced understanding of **Graph Theory** concepts and diverse **graph algorithms** for comprehensive analysis..
- Explored topics such as Strongly Connected Components, Topological Sort, Bridges, and graph traversal.
- Successfully implemented **DSU** and **BIT** data structures for efficient algorithmic solutions.

# Positions of Responsibility

# Organizer, Events in UDGHOSH'22 Team | Sports Festival IIT Kanpur

(July'2022 - Nov'2022)

Leadership	<ul> <li>Led a 2-tier team of 80+ students responsible for organizing formal and informal events during the fest</li> <li>Contacted more than 150 referees for 15 different sports from Uttar Pradesh sports organisation</li> </ul>		
	• Contacted more than 150 referees for 15 different sports from Uttar Pradesh sports organisation		
	• Initiated Udaan, a social initiative for specially-abled students with the help of the CDAP community		
Initiatives	• Organized UNOSQ, Poker, Chess, and E-sports events across the country with 5000+ participants		
	• Projected to organize the Road trips in 10+ cities across India to increase the reach of the festival		
Impact	• Successfully hosted the indigenous sport Cricket 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		

#### TECHNICAL SKILLS

- Programming Languages: C/C++, Python, SQL, HTML5, CSS, JavaScript, LATEX
- Tools and Utilities: Git/GitHub, AutoCAD, Fusion 360, MongoDB, VS Code, Postman, Jupyter Notebook
- Libraries and Frameworks: ExpressJS, ReactJS, NodeJS, Bootstrap, NumPy, Pandas, MatPlotLib, Seaborn, ScikitLearn
- Miscellaneous: MS Excel, MS Word, MS PowerPoint, Micro-Cap, Canva

## Relevant Courses

(\*Online Courses)

Applied Probability and Statistics	Fundamentals of Computing (in C)	Data Structures & Algorithms*
Full Stack Web Development*	Introduction To Machine Learning	Introduction to Electronics
Linear algebra and Differential Equations	Engineering Graphics	Applied Numerical Methods (using Python)

# EXTRA-CURRICULAR ACTIVITIES

- Participated in IITB's All India Chess League (AICL 5.0).
- Took part in the **Survey Camp**, leading a 5-member team in creating a detailed topographic map of **Arogyadham Chitrakoot**.
- Conducted over 500 personalized mentoring sessions for students preparing for JEE Advanced examinations in FILO app
- Participated in an engaging E-sports inter college **pool** tournament hosted by the **E-sports** Club at IIT Kanpur.