

Sourabh Suman

Final Year Undergraduate
Department of Chemical Engineering

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Academic Qualifications

Year	Degree	Institute
2018 - Present	B.Tech	Indian Institute of Technology Kanpur
2017	Class XII (CBSE)	Chinmaya Vidyalaya, Bokaro
2015	Class X (ICSE)	Mount Assisi, Bhagalpur

Work Experience

- **KhetiPoint**, *Developer and UI/UX Intern* (June'20-Sept'20)
 - Setup a **schemaless** crop library on **Cloud Firestore** supporting entries in 3 different languages involving several collections and subcollections of varying complexity and **employed queries** for handling them
 - Developed and deployed an **admin portal** with secure login using **Firebase Auth**, varying level of access defined by admin roles and a user friendly dashboard allowing consistent **CRUD operations** to the crop library
 - Designed the logo and created user flows, wireframes, mockups and prototypes for the **KhetiPoint** mobile application

Key Projects

- **Sudoku-Playground** (May'21-July'21)
Interactive sudoku puzzle solver with different sizes and levels. Self-Project Website Github
 - Devised a randomised **Las Vegas algorithm** and utilised diverse **hole digging strategy** with equivalent propagation to form sudoku puzzles in Javascript with varying levels of difficulty
 - Employed **backtracking algorithm** for solving the puzzles, designed an interactive interface and provided the users with an option to watch the algorithm solve the puzzle in realtime
- **Freedom-Blogging** (March'20-May'20)
Designed and developed a community blogging platform as a Self-Project Website Github
 - Implemented **CRUD** functionality using **REST API** built on express framework for NodeJS with MongoDB as the database
 - Created secure user authentication with **password encryption** resulting in persistent sessions and facilitating user permissions
 - Ranked several blogs in the top 5 google search results with the **SEO friendly** web design
- **Sorting-Fun** (Dec'20-Jan'21)
Built and deployed a comprehensive sorting visualiser as a Self-Project Website Github
 - Employed **merge sort algorithm** using an **auxiliary array** with copying data eventually saving memory and sorting huge arrays quicker than the conventional divide and conquer
 - Designed comprehensive and intuitive comparison animations for the sorting visualiser, built using **React** and **Express** and deployed on Netlify via Github

Positions of Responsibility

- **Coordinator, Fine Arts Club IIT Kanpur** (Apr'19-March'21)

Leadership	- Recruited and led a team of 25 secretaries for conducting events throughout the year - Guided the secretaries for successful conduction of events during Fresher's Orientation and Antaragni'19
Management	- Collaborated with 6 IITs to organise Inter Institute Art Competition which witnessed 270+ participants - Handled an annual budget of INR 1,00,000 for club ventures and expenditures
Achievement	- Represented IIT Kanpur and led the club at Inter IIT Cultural Meet 4.0 held in IIT Bombay - Led a digital expansion expedition reaching a milestone of 4k+ likes on the official club page
- **Senior Executive, Events, Udghosh'19** (July'19-Sept'19)
Spearheaded a team of Junior Executives for smooth conduction of sports events for the Annual Sports Fest of IIT Kanpur
Scheduled and organized volleyball matches between **25+ teams** with **300+ participants** over a period of 3 days

Technical Skills and Relevant Coursework

*online course

- **Programming Languages:** C, C++, Javascript
- **Software and Utilities:** Git, MATLAB, AutoCAD, \LaTeX
- **Web Development:** NodeJS, MongoDB, React, HTML5, Express, Firebase
- **Relevant Coursework:** Fundamentals of Computing, Computational Methods in Engineering, Data Structures and Algorithms*

Extra Curriculars

Sports	- Represented and captained the Junior Institute Volleyball Team in Udghosh '19 - Secured Gold Medals in 100m sprint (Track event) and Long Jump (Field Event) in the Institute Intramurals'18
Cultural	- Represented IIT Kanpur in the Inter IIT Cultural Meet '18 held in IIT Roorkee - Selected in the top 10 entries for Inter Institute Art Contest'20 among 100+ entries from 6 participating IITs