# SPARSH SINGHAL

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## ACADEMIC QUALIFICATIONS

Year	Degree/Certificate	Institution	CPI/%
2019 - 2023	B.Tech.	Indian Institute of Technology, Kanpur	7.74/10
2019	Class XII (CBSE)	Aklank Public School, Kota	91.2 %
2017	Class X (CBSE)	Sir Padampat Singhania Education Center, Kanpur	9.4/10

### WORK EXPERIENCE

## **ATTENTIVE.AI** | Software Development Intern (Full Time)

Jan'23 - June'23

Web	<ul> <li>Developed the company's main platform using React.js library, implementing new features and improved performance</li> <li>Implemented responsive web design principles to ensure seamless user experience across various devices &amp; screen sizes</li> <li>Integrated RESTful APIs to retrieve and display data in the web application, providing real-time updates to users</li> <li>Gained practical experience in software development while contributing to the development of the web platform</li> </ul>
Mobile	<ul> <li>Actively contributed to the enhancement of the company's mobile application with Flutter, undertaking pivotal tasks such as feature development, bug fixing, and performance optimization in close collaboration with the development team</li> <li>Implemented Flutter's robust built-in state management solutions for efficient data flow and app responsiveness</li> <li>Collaborated with the team to refactor and optimize the existing codebase, improving performance and maintainability</li> </ul>

# DR. REDDY'S LABORATORIES | Technical Intern (On-Site) | IPDO (R&D)

May'22 - July'22

Received a Pre-Placement Offer (PPO) for displaying remarkable analytical and leadership skills.

Objective	• Enhance the nature of reaction mass (decrease density) and increase filtration rate by having controlled crystallization	
Approach	<ul> <li>Examined the problem statement with a holistic approach and generated the Why-Why flowchart of the objective</li> <li>Mapped out an exhaustive flowchart of all the possible factors which could be targeting the desired objective</li> <li>Performed solubility studies &amp; 10+ crystallization trials to realize impact of factors on yield, purity &amp; reaction mass</li> <li>Analysed the reasons &amp; effect of alterations in experiments, devised new strategies &amp; optimised experimental conditions</li> </ul>	
Impact	• Achieved decrement in cake resistance and filtration time by 10000 and 100 folds of magnitude, respectively	

# **KEY PROJECTS**

# SHOPPING LIST APP | Self Project | ?

September'20

- Build a **full stack** shopping list web app in **MERN** (MongoDB Express React Node) stack to store and access the items from anywhere
- Developed frontend using **React** library and centralized the applications' states using **Redux.js** library to simplify the flow of data
- Constructed & implemented an API server in **Node.js** using **Express.js**, enabling the frontend to seamlessly interact with the database
- Integrated MongoDB database with the backend using Mongoose object data modelling library to retrieve, create & delete list items
- Implemented JWT authentication to have register, login, and logout features to add and delete an item from the user's account

# DATA SCIENCE | Yhills Edutech | 🗘

December'21 - January'22

- Assimilated supervised machine learning algorithms—Linear & Logistic Regression, Support Vector Machine, & Decision Tree
   Performed Exploratory Data Analysis on the epidemiology dataset, using libraries like Numpy, Pandas, MatPlotLib and Seaborn
- Used **correlation coefficients** to analyse features, conducted **data formatting** & trained different models using **scikit-learn** library
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   Achieved accuracy of 97.66% for classification of cancer patients into having mild/malignant tumors & indicated dominating factors

#### **INVESTMENT BANKING ANALYST | Finlatics**

December'21 - January'22

- Constructed a Discounted Cash Flow Model by using the cash flow statement of ITC Limited to comprehend the present valuation
- Developed an **Excel-based Model** for subsequent years' cash flow, considering parameters, namely—Revenue, Gross Margin, Operating Margin, and Net Margin. Accounted **terminal value** for the future years, eventually acquiring growth rate saturation
- Determined company's **Gross Valuation** by evaluating present value of entire cash flow using **discounting factors** & **growth rates**

#### BANK CURRENCY CLASSIFIER | Self Project | •

July'22

- Implemented a Bank Currency Classifier using the Bank Authentication Dataset from the UCI machine learning repository
- · Performed Exploratory Data Analysis using various statistical measures and removed outliers using techniques like IQR
- Tested various models like the DNN model and Random Forest Classifiers, achieving an overall f1-score of 0.99 on the dev set

# WEB ORGANIZER | Antaragni'20 | O Event 1 O Event 2 O Event 3

April'20 - September'20

• Coordinated with another organizer and the web head to develop websites using **Angular framework** for the frontend development

• Developed half of "Roadtrip's" website & **entire home page** for the "Influencer's" website for the grand cultural fest Antaragni'20

# POSITION OF RESPONSIBILITY

# WEB SECRETARY | Public Policy and Opinions' Cell | 🗘

April'20 - March'21

- Coordinated with another secretary and designed & developed a website for the club from scratch using full stack web development
- Developed client-side webpages and implemented **Node.js** with **Express Framework** for the backend & to render HTML webpages
- Integrated it with MongoDB database to store data using Mongoose library to Read, Create, Update and Delete data from database
- Brainstormed ideas in club meetings to increase the reach of the club and assisted in the political event Policy Conclave'21
- Achieved the **promotion** of the Club (Students' Opinion Society) to a Cell (Public Policy and Opinion Cell) in our tenure

#### TECHNICAL SKILLS & RELEVANT COURSEWORK

Languages: C/C++, JavaScript, Python, ETEX | Data Science: Numpy, Pandas, Matplotlib, Seaborn | Utilities: Git/GitHub, Postman, Excel Web Development & Databases: HTML, CSS/SCSS, React, Flutter, NodeJS, Angular, Express, Redux, MongoDB, SQL Coursework: Data Structures and Algorithms | Fundamentals of Computing | Probability and Statistics | The Web Developer Boot-camp