

ACADEMIC QUALIFICATIONS

Year	Degree/Certificate	Institute	CPI/%
2020-Present	B.Tech(Cheical Engineering)	Indian Institute of Technology, Kanpur	7.5/10.0
2020	CBSE (XII)	LBS Sr. Sec. School, Kota	94.4%
2018	CBSE (X)	DAV BORL Public School, Bina	95.8%

SCHOLASTIC ACHIEVEMENTS

- Secured **All India Rank 1830** in **Joint Entrance Examination (JEE) - Mains 2020** among 1.3 million candidates
- Secured **All India Rank 2828** in **Joint Entrance Examination (JEE) - Advanced 2020** among 0.2 million candidates
- Granted **Kishore Vaigyanik Protsahan Yojna (KVPY) - 2020** fellowship for securing an **AIR 985** by Government of India

WORK EXPERIENCE

Project Intern | Reliance Industries Limited, Jamnagar Manufacturing Division (Received PPO)

(May'23- Jun'23)

Objective	• Detailed analysis and literature survey of methods/techniques available for the <b>production of green hydrogen</b>
Strategy	• Analysed different theses, research papers, and SOTA <b>electrolysis models</b> to determine the most efficient one • Modeled <b>Proton Exchange Membrane (PEM)</b> Electrolyser using Aspen Custom Modeler and ProMax • Evaluated the modelling softwares using sensitivity analysis and submitted a detailed report with a survey
Result	• Achieved a increase of <b>14+%</b> in the <b>green hydrogen production</b> across PEM electrolysis modelling methods

Research Assistant | The Wharton School of the University of Pennsylvania

(Feb'24- Present)

Objective	• Studying the effect of smartphone ban across various universities across india
Strategy	• Conducting exhaustive survey and managing various coordinators across 18+ colleges and 40,000+ students in India • Using various data transformations to keep check on sampled data and increased the response of the survey by 20%
Result	• We look forward to publishing all the results after the baseline survey analysis is complete across all the colleges.

RESEARCH EXPERIENCE

Research Intern | Automated segmentation of MR images with Deep Learning

(May'22-Aug'22)

Mentor: *Prof. Bapi Raju*, Department of Computer Science Engineering, IIIT Hyderabad

Objective	• Improve and refine the performance of <b>U-Net</b> like networks, with the use of <b>parallel decoders</b> which along with performing the <b>mask predictions</b> also perform <b>contour prediction</b> and <b>distance map estimation</b>
Strategy	• Breadth-wise and depth-wise exhaustive <b>literature review</b> of existing developments in <b>Brain image segmentation</b> • Processed <b>IBSD</b> Data-set where manual annotation data of <b>14 sub-cortical structures</b> done by <b>expert radiologist</b> • Implemented <b>state of the art algorithms</b> and compare in terms of its <b>computational time and efficiency</b>
Result	• Bypassed the <b>Dice (0.83)</b> score of current <b>state of the art algorithms(M-net)</b> using the <b>Psi-net model</b>

COMPETITIONS & FELLOWSHIPS

Dr. Reddy's ASPIRE - The Ultimate Case Study Challenge | Hyderabad

(Aug'23 - Sep'23)

(Secured an exclusive *Pre-Placement Interview* as recognition for exceptional performance in the high-stakes Case Study Competition)

Result	• <b>First Runner-up</b> , ranking among the <b>5500+</b> teams out of over <b>17000+</b> students from across India, after excelling in a rigorous selection process that included aptitude tests, AI interviews, and case study evaluation and mentor-ship round
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Mentee | Intern Engage 2022 | Microsoft

    (Apr'22 - May'22)

(Secured an exclusive *Pre-Internship Interview offer* as recognition for exceptional performance during the program)

Objective	• Demonstrating <b>Recommendation</b> and <b>Search Engine</b> algorithms through a <b>Web-app</b> or <b>Mobile-app</b>
Strategy	• Adopted <b>agile development</b> methodology to build a <b>personalized user interface</b> of a web-streaming app • Created seamless UI using <b>NextJS</b> flow-typed in <b>TypeScript</b> with <b>Material UI</b> styled with <b>TailwindCSS</b> • Integrated functionalities like <b>preference form</b> , <b>user List</b> and <b>Favourites</b> using <b>Firebase Real-time Database</b>
Result	• Displayed <b>Genre, Content, Keyword based Recommendations</b> on the basis of user activity on Web-app • Dealt with <b>Cold-Start</b> issue and <b>avoided plateauing</b> of user interests by <b>shuffling</b> and <b>clipping</b> recommendations

KEY PROJECTS

Mergers & Acquisitions (Merger of JSW and SIS-COL) | Finance & Analytics Club, IIT Kanpur

(May'22- Jul'22)

- Detailed analysis and data finding of the **merger** by exhaustive literature review and its impact on their **operational performance**
- Analyzed types of **synergy**, **economies of scale** and **scope**, **cost of equity** and **debt** and calculated **terminal value**
- Followed valuation approaches like **income**, **market**, asset **single period capitalization** and **DCF valuation**
- Evaluated the merger using **EPS Accretion/Dilution test** and used **football field relative valuation** and learnt about **LBOs**

POSITIONS OF RESPONSIBILITY

Assistant Placement Coordinator | Students' Placement Office (SPO), IIT Kanpur

(Mar'22-Mar'23)

Felicitated with certificate of appreciation by the *Deputy Director*, IIT-K, for recognition as Assistant Placement Coordinator, IIT Kanpur

Leadership	• Led <b>3-tier team</b> of <b>180+</b> members to conduct Placement and Internship Drive for <b>1500+</b> and <b>1000+</b> students • Mentored <b>70+</b> fellow coordinators, fostering a collaborative environment that enhanced placement effectiveness • Developing corporate liaisons with <b>60+ corporate firms</b> to ensure their participation in the Internship Drive
Initiatives	• Formulated a sector-specific startup database, cultivating connections with <b>100+</b> companies to fortify opportunities • Helped <b>1300+</b> students by collaborating with <b>HackerRank &amp; MyAnalytics School</b> for test/interview preparation • Strategized the first hybrid placement drive, accommodating 1000+ company professionals and 1500+ students
Impact	• Enhanced <b>awareness</b> among 1000+ students regarding intern preparation by organizing insightful sessions

SOCIAL IMPACT

COVID Support Mission Volunteer | Alumni Association, IIT Kanpur

(Apr'21-May'21)

- Acted as bridge between **patients/needful people** available resources like **medicines**, **hospital beds** and **oxygen cylinders**
- Involved with **235+ IITK Alumni** and **2000+** people comprising of **hospital staff**, patients and other people needing help