Junior Undergraduate, Department of Chemical Engineering, IIT Kanpur

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Academic Qualifications

Year	Degree/Certificate	Institute	CPI/%
2021 - Present	B.Tech	Indian Institute of Technology Kanpur	6.0/10.0
2021	CBSE(XII)	Jawahar Navodaya Vidyalaya, Bundi	89.2%
2019	CBSE(X)	Jawahar Navodaya Vidyalaya, Bhilwara	91.4%

Key Projects

• Introduction to Machine learning and Deep learning O, Stamatics, IIT Kanpur

Apr'23-Jul'23

- Generated Data sets and performed preprocessing, and Visualization skills, using Matplotlib and Pandas
- Implemented algorithms for Supervised and Unsupervised Machine Learning from scratch using NumPy
- Implemented ANN (from scratch) and CNN(using tensorflow) and gained comprehensive knowledge of Deep Learning
- Data Science in Chemical Engineering O, Chemineer's Society, IIT Kanpur

Dec'22- Mar'23

May'23- Jul'23

- Learned the applications of Machine Learning algorithms using python libraries such as **pandas**, **numpy** and **matplotlib**
- Predicted the specific volume of saturated vapor based on pressure by implementing custom Regression models from scratch
 Explored non-linear models and built a 3-layer neural network from scratch to predict a power plant's energy output
- Applied techniques and algorithms for analysing data to glean relevant information and interpret it in an efficient way
- Learnt and implemented Regression models from scratch on the data received from Chemical Industries
- Implemented Neural Networks in Python from scratch to understand Deep Learning fundamentals
- Marketing Mix of Volkswagen | Course Project, Marketing Management, IIT Kanpur
 - Conducted **4P** analysis of **Phaeton**, identified areas for improvement and proposed **Alternative positioning strategies**
 - Developed a targeted marketing campaign based on the new **Positioning** and designed a compelling **Advertisement**
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 Case Project on Sunflower Oil Brand | Course Project, Marketing Management, IIT Kanpur

 May'23-Jul'23
 - Delivered an extensive evaluation of **GEF** India's market research, examining the efficacy of their launch strategy
 - Performed SWOT and 4P analysis to assess launch scope and competition, and used Bullseye Framework to assess positioning
- Core Course Project: CHE261A: Chemical Process Industries, IIT Kanpur

 Mar'23-Apr'23
 - Designed **Proxima Chemicals**, a virtual **chemical-making** company with a 15 members workforce
 - Identified three high value **fine chemicals** considering their profitability, raw material availability, and safety
 - Formulated a detailed **synthesis route** including reaction pathways, catalysts involved and reaction conditions
 - Created a **block diagram** for upscaling the process considering the operating conditions, material and energy balances
- Building Personal Portfolio Website O, Self Project

Jun'23 - Jul'2

- Developed my own personal website for my professional portfolio, utilizing HTML5, CSS, and JavaScript
- Organized the website by separating it into many sections, such as **About**, **Services**, **Portfolio** and **Contact**
- Prioritized user experience, ensuring the website is **Responsive** and **Optimized** for different devices and screen sizes

Technical Skills

- Programming Languages: C, C++, HTML, MATLAB, Python, Javascript
- Utilities: Latex, MATLAB, Excel, MS office, Git

Scholastic Achievements

- Secured a place among the top 80 students out of 8000 to qualify for the Navodaya Vidyalaya Selection Test in 2014
- Selected in **Dakshana** fellowship for two-year program provided to the top 1% of students from 661 JNV's across India

Positions of Responsibility

 \bullet Secretary, Music Club

Jul'22-Apr'23

- Assisted in organising various musical events for the Campus community and participated as a Vocalist
- Trained and mentored first year students for their Freshers event and conducted summer vocal workshops
- Successfully conducted and performed as a vocalist in major Music Club events like ME's, AN's and OE's
- Volunteer, Student Placement Office

Nov'22-Dec'22

- Supervised the logistical aspects of conducting interviews and screening tests for the Recruiting procedure
- Coordinated hiring procedures for companies that included Maverick Derivatives, Da Vinci Derivatives, etc.

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Chemical Process Industries	Fluid Mechanics and its Applications	Chemical Engineering Thermodynamics
Computational Methods in Engineering	Introduction to CHE and Process Calc.	Thermodynamics
Fundamentals of Computing	Introduction to Electronics	Linear Algebra and ODE
Manufacturing Processes I and II	Marketing Management	

Extra-Curricular Activities

- Participated in Band Competition in Galaxy'23 at IIT Kanpur, an event hosted by Student Gymkhana
- Part of music contingent representing IIT Kanpur in Inter IIT Cultural Meet'22, held at IIT Madras
- Won Band Competition in Galaxy'23 at IIT Kanpur
- Participated in Inter IIT Cultural Meet'22, held at IIT Madras