

# Shreya Nigwal

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## Education

Year	Degree/Certificate	Institute	CPI/%
2020-Present	B.Tech	Indian Institute of Technology, Kanpur	7.14/10.0
2019	CBSE(XII)	Kendriya Vidyalaya, Khargone	81.8%
2017	CBSE(X)	Kendriya Vidyalaya, Khargone	10.0/10.0

## Work Experience

- **SURGE Intern : Chladni Patterns On Square Plate** | *Under Prof. Anurag Tripathi, IITK* May'22-Ongoing
  - Gathered information about the phenomenon **Chladni Patterns** and **investigated** the reason behind their formation
  - **Cumulated** data about the materials used in the experiment from research papers to perform the practical in laboratory
  - Established a relation between material parameters, **resonant frequency**, **dimensions** of chladni Plate
  - Using **MATLAB** prepared **data-sets** for different metals, plotted the graph between metal's dimensional parameters
  - Composed a **research paper**, including the obtained data-set and established relation

## Projects

- **IITK Automation Portal Scrapper** | *Self Project*  Nov'21-Dec'21
  - Aim was to learn basics of **Web-Scraping** using python library **BeautifulSoup** and extract IITK student data
  - Scraped **IITK faculty data** and **students data** from Automation portal of IIT Kanpur and stored it in csv format
  - Implemented **Django** to save scrapped data for Student Search Website where data of any IITK student can be found
- **Portfolio Project** | *Self Project*  Nov'21-Dec'21
  - As a start to front-end web-developer, learnt **HTML**, **CSS** and **JavaScript** and a framework **Bootstrap**
  - Later on finalised the design for my website and developed a portfolio website using coding and **Bootstrap** libraries
- **Process Simulation And Modelling In ASPEN PLUS** | *SimuTech, Chemineers Society, IITK* Mar'22-Jun'22
  - Aimed to understand mathematical model working of **Aspen Plus** and optimize the process design after **simulation**
  - Explored the designing and operations of various devices such as **reactors**, **separators** and **columns**
  - Designed the process by specifying the operating conditions ,compositions and physical properties of the process streams
  - Specified Sizing of equipment's and **produced** economical and quality products
- **Thermodynamics** | *Course Project, Prof. Vishal Agarwal* Jan'22-Apr'22
  - Applied **antoine's equation** and **van laar activity coefficient model** to study modified Raoult's Law
  - Implemented the equation in **MATLAB** for Water and N,N-Dimethylacetamide system and obtained y vs x plot
  - Computed isobaric T vs x,y diagram and compared the obtained graphs in MATLAB with the experimental results

## Technical Skills

- **Programming Languages:** C, C++,  $\text{\LaTeX}$ , SQL, Python
- **Libraries:** Numpy, Pandas, Matplotlib, BeautifulSoup
- **Software and Utilities:** Git, Linux, Visual Studio code, MySQL

## Relevant Coursework

Fundamentals of Computing	Real Analysis and calculus	Linear Algebra and ODE
Computational Method in ENGg	Introduction to Electronics	Fluid Mech,its application
Chemical Thermodynamics	Chemical Processes Industries	Thermodynamics

## Position Of Responsibilities

- **Organizer, Show Management, Antaragni** Jul'22-Ongoing
  - Managed selection process of **50+ secretaries and volunteers** to support management work in the fest
  - **Spearheading a large 3-tier team** of secretaries and volunteers to ensure consistent progress of creative work for Fest
  - Responsible for **management** of all the show requirements beforehand, planning the layout, booking venues for events
  - **Assisting** the heads for smooth conduction of Antaragni'22, one of Asia's largest student organized festival
- **Project Mentor, Association For Computing Activities, IIT Kanpur** Jun'22-Ongoing
  - Finalized the project timeline, presented the idea and addressed the application of the project
  - **Mentored 17+ students** to learn basic Reinforcement Learning concepts, **prepared weekly assignments**
  - Cleared the **doubts** of mentees, Took in-person sessions to introduce new concepts and **published tutorial blogs**
- **Secretary, Hospitality And Transport, Antaragni** Sep'21-May'22
  - Responsible for **organizing** remote online **competitions** in Dance, Music, Dramatics and Literature in Antaragni'21
  - Managed some documentation work, clearing of bills and signatures for permission of some events from IITK authorities

## Extra-Curricular Activities

- **Cultural And Sports**
  - Secured **first position** in badminton in sports event, Ranbhoomi conducted by Games and Sports Council, IITK
  - Participated in various Dance events like bollyweek, conducted by dance club, IITK