Mohd Fahad

Third Year Undergraduate, IIT Kanpur
Department of Mathematics and Statistics

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Academic Qualifications

Year	Degree/Certificate	Institute	CPI/%
2020 - Present	B.S. (Mathematics and Scientific Computing)	Indian Institute of Technology, Kanpur	6.6/10
2019	CBSE(XII)	Jawahar Navodaya Vidyalaya , Bijnor	86.8%
2017	CBSE(X)	Jawahar Navodaya Vidyalaya , Bijnor	9.4/10

Scholastic Achievements

- Secured **All India Rank 2558** in **JEE Advanced 2020** among the 2.5 Lakh shortlisted candidates.
- Secured **All India Rank 2644** in **JEE Main 2020** among the 1.8 Million shortlisted candidates.
- Secured **State Rank 38** in **UPTU Entrance Exam** among the 2 Lakh shortlisted candidates.
- Cleared the **NDA written exam** for NDA-143 and appeared for SSB at AFSB Dehradun.
- Cleared the **Jawahar Navodaya Vidyalaya written exam 2015-16** for admission in **JNV Bijnor**.
- Achieved **1253** point maximum rating and **Pupil** Coder on CodeForces. CodeForces Handle - **IITian1_** .
- Achieved **1857** point maximum rating and maximum **4 star** Coder on CodeChef. Codechef Handle - **iitian1** .

Key Projects

- **CP BootCamp, Programming Club, IIT Kanpur** *(May'21- July'21)*
  - Implemented various algorithms like sorting,Binary Search,Matrix Exponentiation,Hashing and many advances of string algorithms like **Z-function, Manacher's algorithm, String Suffix Structures** using the CodeForces platform.
  - Explored and applied the Various **Graph Algorithms** like Dijkstra, Prim, Kruskal, Floyd-Warshall, BellmanFord etc.
  - Explored important **Data Structures** like arrays, strings, vectors, Queue, Heap, Sets, Maps, Trees, Linked list etc.
  - Learned about the Number theory and math concepts like Chinese remainder theorem, Fast fourier transform etc.
- **Analysis and design of planes using XFLR5, Aeromodelling Club, IIT Kanpur** *(May'21- July'21)*
  - Learned the Basics of Aeromodelling, Airfoils and its analysis, and implementing Batch Analysis.
  - Creating new Airfoil's with better specifications and preparing report using inverse foil analysis.
  - Designing and analysing Airfoil's graph analysis Plane design- Wings Elevator Fin Plane analysis.
- **Demystifying-Algorithms, Programming Club, IIT Kanpur** *(April'22 - present)*
  - Learned and solved advance problems on the Topics **Centroid decomposition, SCC and flaws in Graphs.**
  - Explored numerous **Data Structures** and **Dynamic Programming** advance level problem in C++ Language.
- **Leonardo da Vinci Catapult Model** *(Aug'21-Dec'21)*
  Course Project Mentor: Prof. Shashank Shekhar, Department of Material Science and Engineering, IIT Kanpur.
  - Worked on semester-long project in team of 8 members under the course **Introduction to Manufacturing processes**.
  - Developed the idea and design working model of Leonardo da Vinci Catapult Model using **AutoCAD & Fusion360**.
  - Used and employed various manufacturing processes like **Welding, Brazing, Casting, Sheet Metal Forming etc**.

Technical Skills

- **Programming Languages:** C, C++, Python, HTML
- **Utilities :** MS Office, AutoCAD, Micro-Cap, Adobe Illustrator, Adobe Photoshop, Adobe AfterEffect, LaTeX

Positions of Responsibility

- **Head (Design), Udghosh'22, IIT Kanpur** *(Jun'22-present)*
  - Involved in the regular creation of graphics and all the design related works for Udghosh, Sports Festival of IIT Kanpur
  - Leading a 3-tier team of 20 students responsible for design and related works of the whole festival.
  - Involved in the **rebranding** of the fest and took part in its theme creating and designing of Udghosh 2021
  - Guided a group of junior executives hosting basic workshops to understand designing and branding
- **Student Guide, Counselling Service Team** *(Oct'21-present)*
  - Guided and mentored **6 freshmen** students in acclimatizing to the Environment of the Institute
  - Helped them with their academics by arranging meetings with their mentors and still maintain a good rapport.
  - Coordinated with the Counselling Service and helped in the organisation of **Orientation Programme 2021**
- **Sports Secretory, Hall Executive Committee Hall 5, IIT Kanpur** *(April'22-present)*
  - Involved in the Core team of HEC maintaining all the hall affairs and solving hall problems and improvising facilities.
  - Leading the hall in sports Events and deciding budget after analysing all the sports requirement of the hall
- **Secretory, E-Sports Society IIT Kanpur** *(Jun'21- April'22)*
  - Hosted the **ValoRush** event, Generating revenue worth 10k INR, successfully promoted E-sports fight club with total 250+ registrations on their platform, successfully live streamed event with 2.5k+ viewers
  - Successfully organized events including **Inter IIT e-sports tournament, Winter War, Ranbhoomi, Valorush**

Relevant Courses

Fundamentals of Computing	Linear algebra and Differential Equations
Introduction to Electronics	Real Analysis
Set Theory and Mathematical Logic	Probability And Statistics
Abstract Algebra	Analysis I