



VATSAL JAIN



ACADEMIC DETAILS

Year	Degree / Board	Institute	GPA / Marks(%)
---	B.Tech in Electrical Engineering	Indian Institute of Technology Delhi	8.81
2022	CBSE	Blue Heaven Vidyalaya, Jaipur	96.4
2020	CBSE	St. Anselm's Sr. Sec. School, Jaipur	96.4

SCHOLASTIC ACHIEVEMENTS

- **IIT Delhi Semester Merit Award:** Awarded for ranking among the **top 7%** of students academically in the **I and II semesters**
- **Competitive Programming:** Reached a **rating of 1975 (Candidate Master)** on **Codeforces** and **2099 (5-Star)** on **CodeChef**
- **Mathemania 2023:** Secured **8th position** in the final round among **150+ participating teams**, organized by **IIT Kanpur**
- **Minor in Computer Science:** Currently pursuing minor degree with focus on **programming, algorithms, and software skills**
- **JEE Advanced 2022:** Secured **All India Rank 503** in the JEE Advanced exam amongst more than **160,000 candidates**
- **JEE Main 2022:** Secured **All India Rank 378** and **99.96** percentile in JEE Main exam amongst **1.2 million candidates**
- **NSEP 2022:** Recognized as a **State Topper (top 1%)** in the prestigious National Standard Examination in **Physics** (NSEP)
- **KVPY 2021 & 2022:** Awarded the prestigious KVPY (Kishore Vaigyanik Protsahan Yojana) **Fellowship** by DST, Govt. of India
- **IOQM 2021:** Qualified International Olympiad Qualifier **Mathematics**, among the **top 300 students** in India selected for **INMO**
- **NTSE 2020:** Recipient of the prestigious NTSE (National Talent Search Examination) **Scholarship** by NCERT, Govt. of India

INTERSHIPS

- **Atlassian, Bangalore | Data Analytics and Platform Engineering Intern** (May 2025 - Jul 2025)
 - Enabled **flow descriptor** renaming in Atlassian's internal data pipelines by modifying validation logic in the repository, preserving **orchestration integrity, historical run data**, and ensuring long-term workflow consistency across **100+ teams**
 - Built end-to-end observability into **Python-based DBT jobs** by integrating **StatsD** with **SignalFX** via custom **Databricks init scripts**, now actively adopted by the Growth KYC team and available for use across **50+ Data Engineering teams**
- **University of New South Wales (UNSW), Sydney | Research Intern** (May 2024 - Jul 2024)
 - Multi-View Sketch to 3D conversions using Gaussian Splatting | Computer Vision | Prof. Rohitash Chandra, UNSW**
 - Analyzed and comprehended existing codebases for **text to 3D generation** using Gaussian Splatting and multi-view sketch guided text to 3D generation using the **NeRF network** and **Python libraries** to extract parameters from **silhouette sketch**
 - Implemented a custom **Sketch Loss function** by minimizing error, preserving finer detail and **improved output quality**

PROJECTS

- **AI Agent for Strategic Gameplay in Havannah** (Prof. Rohan Paul) (Mar 2025)
 - Designed an AI agent using **Monte Carlo Tree Search (MCTS)**, achieving a win rate of **100% against random agents**
 - Implemented various **heuristics** and strategies to identify **bridges** and assign more **weight** to certain moves based on heuristics
- **Stock Market Simulation and Tracking Application** (Prof. Huzur Saran) (Jul 2024)
 - Built a trading site using **Flask**, integrating **100+ NSE stocks** (via **Jugaad Data**) with **real-time Bokeh candlestick plots**
 - Executed strategy execution using **parallel threads**, achieving **4x improvement in latency** over sequential execution
 - Designed secure authentication with **password hashing** and portfolio management using **SQLite** with **SQLAlchemy ORM**
- **Search Engine and QnA Tool Application** (Prof. Subodh Sharma) (Nov 2023)
 - Developed a search engine using the **KMP algorithm**, matching patterns in a **10,000+ document corpus** with **100% accuracy**
 - Delivering **high-quality responses** to queries with the help of **API models** - ChatGPT, Hugging Face using **Prompt Engineering**
 - Designing an **Efficient Rank function** to get the top K most relevant paragraph from the corpus in response to a given query
- **Database Manager of Intricate Banking System in C++** (Prof. Rahul Garg) (Sep 2023)
 - Developed a **Bank Data Class** to maintain **transactions** between Bank and Individuals in **O(1) amortized time complexity**
 - Made an efficient **Double Hash Function** for optimization with a **minimal collision rate** of hash values in an array of size 10^6

TECHNICAL SKILLS

- **Programming Languages:** Python, C++, C, Verilog, Bash, MySQL, MATLAB, OCTAVE, LaTeX, HTML, CSS, JavaScript
- **Libraries and Tools:** PyTorch, TensorFlow, Django, NumPy, Pandas, Matplotlib, OpenCV, Git, Autodesk, Jupyter Notebook

EXTRA CURRICULAR ACTIVITIES

- **Jane Street Mystery Planet: 1st Prize**, a 4-round event combining complex puzzles and a **trading strategy challenge**
- **WorldQuant International Quant Championship 2024:** Achieved **Gold Level** and ranked **1207th** out of **76,000+ teams**
- **Finalist in Lockout**, a **1v1 competitive coding tournament** with **250+ participants**, held during Tryst, the **Tech Fest** of IIT Delhi
- Secured **2nd Runner-Up** position in **Quant-Decoded**, a Coding + Quant competition with **150+ participants** at IIT Delhi
- **Convenor of Inter-Hostel Technical General Championship** and **Technical Secretary**, secured **2nd place** among all hostels
- **Technical Coordinator for Tryst**, IIT Delhi's Tech Fest, managing and scaling the festival website used by **1000+ participants**



VATSAL JAIN



IIT COURSE

Degree	Institute	CGPA	Dept. Rank
B.Tech in Electrical Engineering	Indian Institute of Technology Delhi	8.81	21

COURSES DONE

Linear Algebra & Diffe. Equa., Data Structures And Algorithms, Probability & Stochastic Pro., Machine Intelligence & Learning, Computer Architecture, Discrete Mathematical Structur, Analysis & Design Of Algorithms

QUALIFYING EXAM

- Joint Entrance Examination (JEE) Advanced Rank: 503 (GE)

INTERSHIPS

- Software Engineering Intern, Atlassian (2025)

EXTRA CURRICULAR ACTIVITIES

- Tech GC Hostel Convener, Inter Hostel TechGC (2024-25)
- Finalist, Lockout
- Runner Up, Code Decode 2.0
- Runner Up, Code Decode 1.0
- Second Runner Up, Pravritti- Code Crusaders
- 2nd Runner Up, Quant-Decoded
- Member, Tech Committee - Member
- Organiser, House Day (January, 2000 - January, 2000)

POSITIONS OF RESPONSIBILITY

- Technical Coordinator , TRYST'25, CAIC (January, 2024 - January, 2025)
- Technical Secretary, Jwalamukhi, BHM (June, 2024 - May, 2025)
- Activity Head, RendezvousX , BRCA (June, 2023 - May, 2024)
- BECON Executive, eDC, OTH (June, 2023 - May, 2024)
- Hult Marketing executive, Enactus, OTH (June, 2023 - May, 2024)