



EDUCATION

Year	Degree/Exam	Institute	CGPA/Marks
2025	M.TECH Dual Degree 5Y	IIT Kharagpur	8.45 / 10
2021	Central Board of Secondary Education	Divine Public School	87.00%
2019	Central Board of Secondary Education	Vivekananda Central School	94.60%

AWARDS AND ACHIEVEMENTS

- Attained title of **Expert** with a rating of **1615** on **Codeforces** (ID: Shahil_Gupta) & **5*** with a rating of **2009** on **Codechef** (ID: atpuglihahs)
- Secured a **global rank** of **21** in the CodeChef Starters 135 2024 (**Division 2**) & **70** in the CodeChef Starters 123 2024 (**Division 4**) contests
- Ranked in the top **0.5%** among over **1 Lakh** students in Code with Cisco 2023, consequently securing a coveted **Pre-Placement Interview**
- Achieved an All India Rank amongst the **top 0.8%** in JEE Mains and the **top 2%** in the JEE Advanced 2021 amongst over **12 Lakh** students

WORK EXPERIENCES

- Founder | ScholarSphere, IIT Kharagpur** [Mar 2024 - Present]
Overview: Founded ScholarSphere to facilitate access for viewers to research intern opportunities through streamlined data organization
- Developed a website using **Supabase** and **Django framework** to provide access to Research intern opportunities, reaching **20k+** viewers
 - Compiled detailed profile data of over **1600** professors by implementing web scraping techniques with **BeautifulSoup4** and **Selenium**
 - Structured data into a searchable format with filters for **50+** universities & **100+** research areas, enabling easy access to professors' profile
- Research Consultant | WorldQuant, Delhi** [Feb 2024 - Present]
Overview: Constructed, backtested, and optimized over 20 quantitative trading alpha expressions using historical stock market information
- Engineered **20 trading criteria** to weigh stocks of portfolios from the subsets of **top 3000** most liquid **equities** of the **US** & **CHN** markets
 - Utilized data fields from the **price action** and **fundamental datasets**, operated with **time - series** to generate statistically robust alphas
 - Optimized each alpha to a minimum **Sharpe** of **1.25**, **fitness** of **1** and turnover below cutoff **70%** for an in-sample backtest of **5 years**
- Web Developer Intern | Algozenith, Nagpur** [Mar 2023 - Apr 2023]
Overview: Developed a Slack bot for asynchronous message processing & real-time communication between producers and Slack channels
- Engineered a scalable **Node.js** & **TypeScript** backend, leveraging type-safe for robust transaction handling & seamless **Slack** integration
 - Created a **Fastify Slack bot** that delivers real-time alerts with **timestamped** notifications, capable of delivering **2000+** alerts per second
 - Integrated **RabbitMQ** to reduce the message drop chance to **0%** with acknowledgements and used **PostgreSQL** for transactions logging

PROJECTS

- Cinsearch | Opensoft** [Feb 2024 - Mar 2024]
Overview: Developed a movie website with responsive interface, enhanced search functionality, and effective recommendation algorithms
- Developed a **silver-winning** movie website using **ReactJS library**, ensuring a **responsive** interface with an engaging browsing experience
 - Enhanced database performance by integrating **MongoDB Atlas Search**, strengthening search functionality with **querying** and **filtering**
 - Implemented **KNN** using **Cosine Similarity** and **collaborative filtering** and achieved a minimum **BCE** of **0.606** on **train** and **0.610** on **test**
- Kryptonium | DApp for Online Transaction** [Dec 2023 - Jan 2024]
Overview: Developed Kryptonium, a blockchain web application for Ethereum transactions using ReactJS, Solidity, and Metamask integration
- Engineered a **blockchain** web application to facilitate Ethereum transactions over **Ethereum Virtual Machine**, utilizing **ReactJS** and **CSS**
 - Crafted and implemented **smart contracts** using **Solidity Language**, and deployed on the **Goerli Ethereum** test network environment
 - Integrated the **Metamask Wallet** extension for secure & user-friendly Ethereum wallet management within the web application interface

SKILLS AND EXPERTISE

Technical Skills: C | C++ | Python | Javascript | Solidity | ReactJS | HTML | CSS | Typescript | MongoDB | Selenium | Beautiful Soup 4
Software: Visual Studio Code | Atom | Code::Blocks | Jupyter Notebook | Sublime | PyCharm | Slack | Microsoft Excel | Microsoft Word

COURSEWORK INFORMATION

Programming and Data Structures* | Design and Analysis of Algorithms | Computer communication and Networking | Algorithms 1 | Probability and Statistics | Advanced Calculus | Transform Calculus | Linear Algebra, Numerical and Complex Analysis * (Lab + Theory)

POSITIONS OF RESPONSIBILITY

- President | Poshan Chapter | Feeding India by Zomato** [Sep 2023 - Present]
 - Spearheaded a team of **50 students** to organize and execute a **donation camp** for an orphanage, coordinating the distribution of supplies
 - Led a fundraising campaign, which culminated in the generation of over **INR 50k** to support the critical needs of underprivileged children
- Secretary Dramatics | Patel Hall of Residence | IIT Kharagpur** [Nov 2022 - Mar 2023]
 - Conducted Practice sessions of the dramatics events, **General Championship**, **Social and Cultural** for the academic session 2022-2023
 - Managed a budget of over **INR 100,000** for Dramatics events, overseeing the organization of Stage Plays, Street Plays, and Choreography

EXTRA CURRICULAR ACTIVITIES

- Sports:** Won the **Silver Medal** in the Intra-Hall Chess Tournament at Patel Hall of Residence, securing **2nd** place among **50+** participants
- Mentoring:** Mentored 1st-year undergraduate students in the Programming and Data Structures, taught core concepts of C programming