Aditya Anand
Junior Undergraduate
Department of Mechanical Engineering

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Academic Qualifications

Year	Degree/Certificate	Institute	CPI/%
2020 - Present	B.Tech	Indian Institute of Technology Kanpur	7.72/10
2020	CBSE(XII)	The Pentecostal Assembly School, Bokaro	96.2%
2018	CBSE(X)	The Pentecostal Assembly School, Bokaro	92.2%

Scholastic Achievements

- Participated in **Inter-IIT Tech Meet 10.0** conducted by IIT Kharagpur, in the event 'Mudrex's Alpha Trading Quest' [2022]
- Secured **All India Rank 2430** in **Joint Entrance Examination-Advanced** among the 2.5 Lakh eligible candidates [2020]
- Secured **All India Rank 2828** in **Joint Entrance Examination-Main** among the 12 Lakh registered candidates [2020]
- Won **Silver Award**(Senior Category) in The Royal Commonwealth Society's **Commonwealth Essay Competition** [2017]

Key Projects

- **Predicting Stock Returns using CAPM & Fama French | Finance and Analytics Club** 🗘 *(May'22-Jul'22)*
  - Implemented the CAPM model using Python and its libraries and estimated the price of stocks with an **accuracy of 92%**
  - Analysed and compared various models based on their **underlying factors**, i.e., technical, fundamental, or macroeconomic
  - Quantified risk & rewards by plotting Efficient Frontier Graph to obtain optimal ratio for a portfolio with max. Sharpe ratio
- **Option and Strategies to Hedge a corpus | Finance and Analytics Club, IIT Kanpur** *(May'22-Jul'22)*
  - Familiarised with stock terminologies, derivatives, hedging, Put-Call Parity, option strategies and the Black-Scholes model
  - Utilised strategies like Short Call Butterfly and Call Ratio Back Spread to **minimise** the **positional Delta** as close to **0**
  - Backtested the strategy on 'Opstra' for **NIFTY50** and achieved a **profit probability of 83%** and **max. profit of 35%**
- **Solving Multi Item Capacitated Lot Sizing Problem | SURGE 2022** 🗘 *(May'22-Jul'22)*
  Mentor: Prof. R. Raghavendra Kumar Sharma | Department of Industrial and Management Engineering
  - Minimised the cost in Supply Chain Management of goods from set-up to inventory carrying charge to meet daily demand
  - Formulated an algorithm based on day-wise set-up and inventory cost to meet demand by **optimising total cost** incurred
- **Automated Crypto Trading Bot | Mudrex's Alpha Trading Quest, Inter-IIT Tech Meet 10.0** *(Mar'22)*
  - Implemented strategies based on combinations of technical indicators to maximise performance score on 'Mudrex' platform
  - Tested the strategy for cryptocurrencies and achieved a **3× annualised return** over market value and Sharpe Ratio of 2.5
- **Seize the Market | IIT Kanpur Consulting Group, IIT Kanpur** *(May'22-Jul'22)*
  - Assisted Stanford seed spark program inducted legal-tech startup RTIwala to create a Go to Market strategy for its product
  - Identified and analysed the most desired zones in India for project launch, its **value propositions** and market sentiments
  - Market strategy roadmap created, would be **time phased pilot tested** in **Gadchiroli, Maharashtra** before its expansion
- **Implementing Pairs Trading Strategy | Finance and Analytics Club, IIT Kanpur** 🗘 *(Dec'21-Jan'22)*
  - Designed a data-driven quantitative Trading Strategy using Python libraries observing 6 years data sample of Indian stocks
  - Effected **Cointegration** approach: Identified pair of stocks for which Linear Combination results in **Stationary** Time series
  - Estimated hedge ratio using Linear Regression, normalized the **spread** using rolling window: Took **market-neutral** position

Technical Skills

- **Programming Languages:** C++, Python, MATLAB
- **Web Development:** HTML, CSS, JS, Node.js, MongoDB
- **Software and Libraries:** Git, LaTeX, Autodesk Fusion 360, Gazebo, Numpy, Pandas, SciPy, Matplotlib

Positions of Responsibility

- **Coordinator | Finance and Analytics Club, IIT Kanpur** *(Apr'22-Present)*
  - Mentored **2** Summer Projects with **100+** mentees and organised competition, **'Guess-it-Mate'** with **250+** participants
  - Managed a budget of **INR 60,000+**, negotiated deal with 'PrepLeaf' and oversaw the social presence with **3K+** members
  - Led a **team of 30** to ensure smooth con-duction of activities of the club and **hosted flagship event- 'Non-Core Weekend'**
- **Organiser, Finance | Udghosh, IIT Kanpur** *(Jul'22-Present)*
  - Responsible for planning and maintaining all **Financial and Logistical aspects** involved in the festival in a **3-tier team**
  - Coordinate with other verticals to carry out the financial operations, in a group of head, **6** organisers and **9** senior executives
- **Academic Mentor, Fundamentals of Computing | Counselling Service, IIT Kanpur** *(Oct'21-Jul'22)*
  - Conducted institute-level remedial classes attended by **250+** first-year students by solving their doubts related to coursework
  - Worked in a group of **20+** academic mentors and heads to prepare material and notes of the subject and provide guidance
- **Senior Executive, Web and App | Techkriti, IIT Kanpur** *(Jul'21-Mar'22)*
  - Customised the website of **Techkriti Open School Championship'21** and incorporated design modifications to its site
  - Revamped the code, and changes in frontend and backend were pushed to GitHub repository for final review and publishing

Relevant Courses
*(*Online Courses)*

Fundamentals of Computing	Introduction to Electronics	Discounted Cash Flow Modeling*
Introduction to Electrical Engineering	Portfolio Optimization- Markowitz Model*	Derivatives- Options & Futures*

Extra-Curricular Activities

- Awarded **Certificate of Merit** for being in **Top 20 finalists** in Startup Masterclass organised by Entrepreneurship Cell
- Performed Dance in **Y-20 Freshers' Showcase** in a group of 10, under the guidance of coordinators of KoS, Dance Club