

Raman Malani


3rd year Undergraduate
Department of Physics

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ACADEMIC QUALIFICATIONS

Year	Degree/Certificate	Institute	CPI/%
2021 - Present	B.S.	Indian Institute of Technology Kanpur	7.1/10
2021	Maharashtra board of HSC (XII)	Shri Havagiswami college, Udgir	95.33%
2019	Maharashtra board of SSC (X)	Times Public School, Udgir	94.2%

Research Experience

Surface Plasmon Resonance | Course Project: PHY224, Prof. V. Jayasurya 

(Aug '22 - Nov '22)

Objective	<ul style="list-style-type: none">To verify elliptically polarized light generation via reflection of linearly polarized light off metals.Experimentally verify the surface plasmon resonance for applications in biosensing, and optical devices..
Strategy	<ul style="list-style-type: none">Deduced refractive index of silver via data analysis of elliptically polarized light reflected from silver.Established an experimental setup utilizing a prism affixed to thin silver layer employing nail polish fluid.
Result	<ul style="list-style-type: none">Achieved a thorough grasp of of resonant energy absorption theory at the metal-air interface.

KEY PROJECTS

Mathematical Trading Strategies | Stamatics, IIT Kanpur 

(May '23 - Jul '23)

Objective	<ul style="list-style-type: none">Focus on developing and optimizing trading strategy for precise trade signals & accurate trend forecasts.Utilize robust data analysis techniques & technical analysis tools to identify potential trading opportunity.Conduct correlation analysis between NASDAQ and NSE indices to identify lead-lag relationships.
Strategy	<ul style="list-style-type: none">Leveraged moving-average strategy(SMA and EMA) to identify market trends and generate trade signals.Optimized trading strategy by combining indicators and fine-tuning parameters for better performance.
Result	<ul style="list-style-type: none">Generated exceptional cumulative returns by executing the optimized trading strategy for NIFTY Bank.Achieved efficient risk-adjusted performance with a maximum drawdown of 10% and a Sharpe ratio >2.0.

Algorithmic Graph Theory | Association For Computing Activities, IIT Kanpur 


(May '23 - Jul '23)

Objective	<ul style="list-style-type: none">Explore graph theory from an algorithmic perspective and basics of group theory and Ramsey Theory.
Strategy	<ul style="list-style-type: none">Examined minimum spanning trees, Dijkstra Algorithm to more advanced topics like graph coloring.Explored intriguing problems on Graph Theory by Cambridge professor Prof. Timothy Gowers.
Result	<ul style="list-style-type: none">Learned to solve the Rubik's cube and Merlin's machine using the Graph Theory and Group Theory.

Expansion through M&A | Self Project 

(May '22 - Jul '22)

Objective	<ul style="list-style-type: none">Conducting a comprehensive qualitative survey on recent Mergers and Acquisitions in the industry.
Strategy	<ul style="list-style-type: none">Conducted a DCF valuation: Evaluate the acquisition of Betapharm by pharmaceutical giant Dr.Reddy.Analyzed the financial implications and value creation potential of the acquisition for both companies.
Result	<ul style="list-style-type: none">Learnt several relevant concepts of WACC, DCF valuation, EPS and Football Field valuation.

Data Structures and Algorithms | Course Project- ESO207, Prof. Sanjeev Saxena 

(Jan '23 - Apr '23)

Objective	<ul style="list-style-type: none">Conducting a comprehensive qualitative survey on recent Mergers and Acquisitions in the industry.
Strategy	<ul style="list-style-type: none">Conducted a DCF valuation: Evaluate the acquisition of Betapharm by pharmaceutical giant Dr.Reddy.Analyzed the financial implications and value creation potential of the acquisition for both companies.
Result	<ul style="list-style-type: none">Learnt several relevant concepts of WACC, DCF valuation, EPS and Football Field valuation.

TECHNICAL SKILLS

- Programming Languages:** C, C++, \LaTeX , Python.
- Libraries:** Numpy, Pandas, Matplotlib, SQL.

RELEVANT COURSES

[†]A (*) - Ongoing.

Data Structures and Algorithms	Applied Probability and Statistics [†]	Market Design*
Introduction to Real Analysis	Advanced Linear Algebra and ODE	Introduction to Microeconomics

POSITIONS OF RESPONSIBILITY

Assistant Placement Co-ordinator | Students' Placement Office, IIT Kanpur (Apr '23 - Present)

- Previously worked as a **Company Coordinator**, Coordinated with **30+** companies like Quadeye, Sprinklr, and Walmart, orchestrating seamless placements for **1800+** students during the groundbreaking 2022-23 internship and placement season.

Leadership	<ul style="list-style-type: none">Co-ordinating internship process of 900+ students & placement process of 1500+ students in a 3-tier team.Facilitated the highly successful First Career Fest "Samvardhan", with 15+ companies & 1000+ footfall.Successfully managed the conduction of over 600 interviews for the selection of 70 Company Co-ordinators.
Initiative	<ul style="list-style-type: none">Introduced series of Roadmap to placements for 10+ sector wise job profiles benefiting 1000+ students.Achieving recruitment success by inviting PE and VC firms, startups and diversifying role opportunities.Empowered 2000+ students through Prepleaf & MyAnalyticsSchool collaboration for tests & interviews.
Impact	<ul style="list-style-type: none">Developed corporate liaisons with 60+ corporate firms to ensure their participation in the Intern Drive.Achieved 450+ internships and 1300+ job offers during the successful 2022 internship and placement drive.Effectively led the Samvardhan Career Fest, resulting in the acquisition of 5 FTE and 6 summer internships.

Leadership	<ul style="list-style-type: none"> Guided and mentored six freshmen students, supporting their transition into the Institute's environment. Collaborated effectively with student guides, facilitating smooth registration process for over 1200 students. Coordinated with the Counseling Service to contribute to the successful execution of the Orientation 2022.
Initiative	<ul style="list-style-type: none"> Supported freshmen with meetings and mentorship for their positive academic and emotional growth. Offered freshmen guidance, fostering institute culture and their active participation and contribution.
Impact	<ul style="list-style-type: none"> Acclimated freshmen to institute's environment, fostering communication and reliable support effortlessly.

Leadership	<ul style="list-style-type: none"> Acquired proficiency in Stand-Up comedy, Improvisation, Roasting, and shared expertise with enthusiasts. Mentored 20+ freshmen students for awe-inspiring performances before captivated 500+ Freshers crowd.
Initiative	<ul style="list-style-type: none"> Dedicated extensive practice to improvisational comedy and enthusiastically participated in Galaxy '23.
Impact	<ul style="list-style-type: none"> Cultivated an inclusive club culture, fostering a welcoming and supportive environment for all members.

EXTRA CURRICULAR

Social work	<ul style="list-style-type: none"> Organized blanket donation drive in Kanpur, providing warmth to 100+ homeless residents during winter. Actively volunteered in managing a blood donation camp, making contributions to lifesaving initiatives.
Cultural	<ul style="list-style-type: none"> Engaged in Inter-IIT, delivering captivating improvisational comedy against 40+ teams from 15+ IITs. Recipient of "Student of the Year" award for excellence in scholastic achievement and cultural activities. Anime Society Secretary: Mangaka and Manga reviews, Seasonal anime articles, and event engagement. Participated in diverse cultural activities including dance, drawing, speech, achieving notable accolades.
Misc.	<ul style="list-style-type: none"> Reached the final round of the inter-school science fair & competed against teams from multiple districts. Finalist in a non-stop 16-hour overnight intra-IIT treasure hunt organized by MnC Council, IIT Kanpur.