RAHUL KUMAR MANDAL

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EDUCATION

Expected 12/25	**NEW YORK UNIVERSITY**	New York, NY

The Courant Institute of Mathematical Sciences
M.S. in Mathematics in Finance
- ***Forthcoming Coursework:*** Python, machine learning, calculus, probability, Black-Scholes, Binomial trees, IR models, SDEs, PDEs, portfolio optimization, risk modeling

06/18 - 02/20	**INDIAN INSTITUTE OF FOREIGN TRADE**	New Delhi, India

M.B.A. in Finance, Strategy, and Marketing
- *Coursework:* Statistics, derivatives, game theory, economics, portfolio management
- *Honors/Awards:* National qualifier in WorldQuant trading challenge Alphathon

05/09 - 04/13	**INDIAN INSTITUTE OF ENGINEERING SCIENCE & TECHNOLOGY**	Shibpur, India

B.E. in Metallurgy & Materials Engineering
- *Coursework***:** Linear algebra, differential and integral calculus, PDEs, optimization, kinetics
- *Honors/Awards***:** Ranked 36 in all-India National Mathematics Olympiad

EXPERIENCE

WORLDQUANT

05/24 - Present	**Brain Research Consultant (Fast Expression Language, Python, R)**	Kolkata, India

- Built strategies based on statistical arbitrage, Markov chain, Martingale and implied volatility

04/19 - 10/19	**Quantitative Research Consultant (Fast Expression Language, Python, R)**	New Delhi, India

- Built financial alphas to predict behavior of top 2K NASDAQ equities that have achieved results such as sharpness of 3.06, fitness of 1.34 and returns/drawdown ratio of 3.09

04/23 - Present	**ETARK SOCIAL**	Kolkata, India

Founder (Python, Firebase, MongoDB, Azure)
- Launched world's 1st messaging app to provide full spam control in chats by implementing GTM strategy validated by Bass model that led to 9.8K users within 2 months at zero CAC

11/21 - 04/23	**EY**	Kolkata, India

Senior Consultant - Quantitative Research, Strategy, Product, M&A, GTM (Python, R, Tableau)
- Built risk management model for global automobile manufacturer based on advanced statistical causal research which generated drop in payment defaults by 42% in 1 quarter

04/20 - 11/21	**ETARK**	Kolkata, India

Head of Product & Business (Python, R, MongoDB, AWS)
- Built system based on Algorithmic Law that analyzes consumer complaints in <1 min; optimized DAU/MAU >30% and designed GTM to achieve 10% growth at zero CAC

01/15 - 06/18	**STEEL AUTHORITY OF INDIA LIMITED**	Durgapur, India

Operations, Planning, Business Development Manager (Excel, Linux)
- Increased production by 30% ($215K) by optimizing logistics, inventory and chemistry

PROJECTS

06/22 - Present	**CAUSAL AI ALGORITHM**	

- Found cause-effect relationships, validated over 2.5 years, reducing model errors by factor of 1K

05/24 - 09/24	**INDIAN INSTITUTE OF ENGINEERING SCIENCE & TECHNOLOGY**	Shibpur, India

Dynamics of Financial Market Liquidity
- Studied liquidity takers and providers using Lotka Volterra Prey-Predation model and variants

COMPUTATIONAL SKILLS / OTHER

Programming Languages: Python, R, Tableau, Linux, MySQL, MongoDB
Languages: English (fluent), Bengali (native), Hindi (fluent)
Affiliations/Certifications: Berkeley HaaS MFE Pre-program certification in Applied Math, Statistics and Python