SHYAM IYER

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EDUCATION

Expected 12/24	**NEW YORK UNIVERSITY** **The Courant Institute of Mathematical Sciences** **M.S. in Mathematics in Finance**	New York, NY

- ***Expected Coursework:*** time series analysis, scientific computing, risk and portfolio management, dynamic asset pricing, algorithmic trading, equity derivatives

07/19 - 05/23	**INDIAN INSTITUTE OF TECHNOLOGY BOMBAY** **B.Tech. in Engineering Physics and Minor in Computer Science and Engineering**	Mumbai, India

- ***Coursework:*** multivariate calculus, stochastic calculus, nonlinear dynamics, linear algebra, probability, statistics, machine learning, modeling and simulation

EXPERIENCE

06/23 - 08/23	**TATA INDUSTRIES LTD.** **Investment Analyst Intern (Excel)**	Mumbai, India

- Designed hub-and-spoke plant framework for rapid extraction and fermentation of sweet sorghum bioethanol, thereby boosting ROI projection on existing financial models
- Evaluated investments and incubator opportunities globally via research and financial analysis
- Presented reports to senior executives, which contributed to strategic decision-making

05/22 - 07/22	**BARCLAYS INVESTMENT BANK** **Analyst Intern - Electronic Trading (Python)**	Mumbai, India

- Demonstrated price improvement of up to 100 bps on liquidity seeking trades by backtesting novel short term price prediction models using SciPy and Pandas
- Enhanced client profiling on LX Darkpool by augmenting internal reports with 30+ trend visualizations using PySpark and SQL on Hadoop clusters
- Gained financial knowledge by communicating with teams across verticals

06/21 - 04/22	**QUHU PVT. LTD.** **Software Intern - Backend (Spring Java, SQL)**	Delhi, India (Remote)

- Developed backend REST API infrastructure using Spring Java for Android application
- Incorporated end-to-end user and post-management service for blocking and reporting content
- Streamlined maintenance and accelerated queries by migrating databases to Amazon RDS

PROJECTS

04/23 - 05/23	**INDIAN INSTITUTE OF TECHNOLOGY BOMBAY** **Monte-Carlo Method Simulation of the Ising Model (FORTRAN)**	Mumbai, India

- Used Metropolis algorithm for Monte-Carlo simulation of Ising model in FORTRAN
- Plotted magnetization and specific heat of model system via GNUPlot for data analysis

11/20 - 12/20	**INDIAN INSTITUTE OF TECHNOLOGY BOMBAY** **Analysis of Underlying Event Data in ROOT (C++, ROOT)**	Mumbai, India

- Analyzed underlying event characteristics in p-p collisions using Monte-Carlo data in ROOT
- Computed and plotted histograms of rapidity, pseudo-rapidity and transverse momentum

COMPUTATIONAL SKILLS / OTHER

Programming Languages: C++, Python, Java, SQL, MATLAB, FORTRAN
Languages: English (fluent), Hindi (fluent), Tamil (native)
Activities: Statistical Physics and Introductory Biology Teaching Assistant, College Quiz Club Head