Satyam Saurabh

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EDUCATION

The University of Chicago — **Chicago, IL**
Master of Science in Financial Mathematics (3.6 / 4.0) — **Expected December 2025**

- Courses: C++ for Advanced Programmers, Computing for Finance in C++, HPC in Finance, Probability Theory

Indian Institute of Technology, Guwahati — **Guwahati, India**
Bachelor of Technology in Mechanical Engineering (3.5 / 4.0) — **June 2019**

- Minor: Electronics Engineering
- Courses: Control Theory, Optimization Methods in Engineering, Computational Fluid Dynamics, Analysis

SKILLS

Computing: C++, Python, Java, Go, Kotlin, SQL, Data Structures and Algorithms, System Design
Mathematics: Linear Algebra, Stochastic Processes, Partial Differential Equations, Statistics, Machine Learning
Software Technology: Kafka, Redis, WebSocket, Postgres, Timeseries DB, REST, Multi-threading, Micro Services

EXPERIENCE

JPMorgan Chase — **New York, New York**
Quant Researcher Markets Analyst — **June 2025 – August 2025**

- Developed a Python based solution to identify client funds closely tracking one or more indices, enabling accurate estimation of FX funding requirements around index rebalancing events
- This ensured adequate liquidity to handle anticipated trading spike and secured better FX rates to save revenue

Emint Trade (Quantbox Research) — **Bengaluru, India**
Software Development Engineer 2 — **March 2023 - July 2024**

- Engineered key backend services to support order management system for brokerage platform with end-to-end order completion time of less than 20 milliseconds
- Designed market data pipeline using Time Series Database and Golang, capable of scaling up to 1 million concurrent connections; contributed to key product decisions such as margin hedge benefits and trigger orders
- Implemented library for payoff charts, greeks, iv and prob of profit for options in C++, enabling users to strategize their options trading strategies more effectively; built system for pledge collateral and trading from charts

Tikola — **Bengaluru, India**
Co-founder — **March 2022 - February 2023**

- Designed and developed an opinion exchange platform where users could trade opinions on real world events such as economy, sports and politics. Scaled it to 2k+ users in 2 months.
- Engineered matching algorithm in C++ for high liquidity of event contracts to increase matching efficiency. The venture didn't work out, but learnt a lot about exchange dynamics, matching algorithms and product development

Fidelity Investments — **Bengaluru, India**
Software Engineer — **August 2019 - February 2022**

- Led development of basket feature enabling users to create and trade basket of securities with a single click; developed multiple APIs to support feature in existing experience
- Developed high TPS (6000) APIs following microservices architecture to support brokerage platform catering to 45 million customers: implemented calculation logic for different parameters for orders and positions page
- Maintained health of APIs during high volatility through robust performance & functional testing; developed algorithm to bucketize all prod issues using python and tf-idf - reducing debugging time by 50%

PUBLICATIONS

IIT Guwahati — **Aug 2018-Aug 2021**

- Developed an effective diversity preference based many-objective particle swarm optimization approach for solving box constrained optimization problems, achieving strong results on DTLZ and WFG benchmarks across high-dimensional objectives. Published in the Journal Swarm and Evolutionary Computation

PROJECTS

University of Chicago — **Jan 2025-Mar 2025**

- Designed and implemented a high concurrency Socket service in C++ to broadcast real time market tick data, leveraging modern C++ features such as smart pointers, templates, locks, and async communication. GitHub