# Satyam Saurabh

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## **EDUCATION**

## The University of Chicago

Chicago, IL

## **Master of Science in Financial Mathematics**

**Expected December 2025** 

• Courses: Probability and Stochastic Processes, Portfolio and Risk Mgmt., Computing for Finance in C++

### Indian Institute of Technology, Guwahati

Guwahati, India

## Bachelor of Technology in Mechanical Engineering (3.5 / 4.0)

June 2019

Minor: Electronics Engineering

• Courses: Optimization, Computational Fluid Dynamics, Differential Equations, Multivariable Calculus, Analysis

### **SKILLS**

**Computing:** Java, Kotlin, C++, Python, Data Structures and Algorithms, Micro services, System Design, Multi-threading **Knowledge:** Probability Theory, Financial Markets, Brokerage Technology and Operations

Trading Products: Equities, Futures, Options, Commodities, Fixed Income

### **EXPERIENCE**

### **Emint Trade**

Bengaluru, India

# March 2023 - July 2024

# Software Development Engineer 2

- 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 logic to show payoff charts, greeks, iv and prob of profit for option chain, enabling users to strategize their options trading strategies more effectively; built system for pledge and trading from charts
- Trained and mentored three junior developers to improve overall team performance, reflected in quicker issue resolution and timely shipment of features

### Tikola

Bengaluru, India

#### Co-founder

**March 2022 - February 2023** 

- Designed 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 for a high volatility for event contracts to increase matching efficiency by 200%; Led team of five interns to scale app to 600+ daily active users

## Fidelity Investments Software Engineer

Bengaluru, India

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: improved latency of positions API by 75% through parallel execution
- 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**

- Collaborated with my mentor and colleague to develop an effective diversity preference based many-objective particle swarm optimization approach for solving box constrained optimization problems (Aug 2018-Aug 2021)
- Designed the algorithm in C; published in a high impact journal: Swarm and Evolutionary Computation

## **CERTIFICATIONS**

## **Baruch College**

• C++ for Financial Engineering

Aug 2024 - Present

• Advanced Calculus and Probability Theory for Financial Applications (Certificates)

Sept 2023 - Dec 2023

## **ADDITIONAL INFORMATION**

- Engineered a gamified platform to track habit of programming allowing users to link any platform and earn rewards for practice; released it on play store <u>GrammIt</u>
- Active screenplay writer for college movie club (2017-19); crafting a couple of short stories (2023–Present)