

Aadi Gupta

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EDUCATION

The University of Chicago

Chicago, IL

Master of Science in Financial Mathematics

Expected December 2025

- Courses: Portfolio Theory & Risk Management, Python, Option Pricing, Probability & Stochastic Processes

Indian Institute of Technology

Assam, India

Bachelor of Technology in Mathematics and Computing (3.85/4)

June 2022

- Courses: Probability Theory and Random Processes, Linear Algebra, Data Structures and Algorithms, Differential Equations, Optimization, Multivariable Calculus, Statistical Modelling and Numerical Simulation
- Awards: Departmental Silver Medal for 2nd best GPA, Department of Mathematics

SKILLS

Computing: C++, Python, SQL, NumPy, Pandas, Pyspark, Tensorflow

Finance: Futures and Options, Computational Finance, Monte Carlo Simulation

Knowledge: Data Analytics, Machine Learning & Neural Networks, Statistical Inference & Analysis

EXPERIENCE

Deloitte Touche Tohmatsu Limited

New Delhi, India

Senior Executive

October 2023 - Present

- Develop credit rating financial models based on 3-statement model to assess the client companies' creditworthiness for raising debt capital
- Leverage various financial ratios such as 'Debt Service Coverage Ratio', 'Debt-Equity Ratio' etc. to evaluate borrowing capacity and generate insights for debt capital raising strategies
- Conduct scenario analysis and sensitivity testing within financial models to assess risk and optimize debt structures

Open Insights LLP

Maharashtra, India

Data Scientist

June 2022 - August 2023

- Collaborated with the US Bank team closely to build an end-to-end machine learning model capable of predicting end-of-the day bank balance of its customers, was accepted and implemented by the management
- Developed a Data Science model capable of performing segmentation of the client's customer base based on web and app activity; model utilized by the client to run targeted campaigns
- Implemented 'MLOps' architecture for a diverse range of machine learning projects; Automated end-to-end workflows, including data preprocessing, model training, and deployment, using CI/CD pipelines
- Volunteered to curate and deliver training material on various Data Science and ML tools to educate and train prospect employees of the client

Open Insights LLP

Maharashtra, India

Data Science Intern

May 2021 - August 2021

- Developed 2 predictive models for JPMC's Merchant services; identified merchants with low probability of retention, informing retention strategies and potential business opportunities by analyzing existing merchant base

RESEARCH

Indian Institute of Technology

Assam, India

Classification based credit risk analysis

August 2021 - May 2022

- Performed a credit risk analysis on the data of past loan applicants
- Leveraged exploratory data analysis and machine learning classification algorithms to estimate the probability of default, leading to the design of a credit derivative akin to a Credit Default Swap, to hedge against an event of default
- Accepted for publication and oral presentation at Tenth International Conference on Mathematics & Computing (ICMC-2024)

EXTRACURRICULAR

Indian Institute of Technology

Assam, India

AI Head, 4I Labs - Robotics Club

January 2020 - January 2021

- Led and oversaw all ongoing projects; collaborated with faculty and industry professionals to arrange guest lectures and managed club finances

ADDITIONAL INFORMATION

Languages: Hindi(fluent)

Interests: Volunteer work, badminton, poker and other card games