# Rajdeep Das

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## **EDUCATION**

# The University of Chicago

Chicago, IL

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

**Expected December 2025** 

- Courses: Probability & Stochastic Processes, Portfolio & Risk Management, Python, Option Pricing
- Awarded the Maroon Scholarship

## **Indian Institute of Technology-Delhi (IIT-D)**

Delhi, India

## Bachelor of Technology in Mathematics & Computing (GPA: 3.63/4.0)

May 2023

- Courses: Probability Theory, Statistical Methods, Data Structures and Algorithms, Intro. to Financial Institutions and Markets, Linear Algebra, Linear Optimization
- Awarded Semester Merit Award, Secured All India Rank of 308 in IIT-JEE(Adv) among 160K candidates

## **SKILLS**

Computing: C++, Python, Jupyter, R, MATLAB, Java, Unix/Linux, Git, MS Office

**Knowledge:** Financial Markets, Machine Learning, Time Series Analysis, Statistical Modelling, Data Analytics **Other:** Options 101-Akuna Capital, Financial Engg. & Risk Management-Columbia, ML in Finance-NYU (Coursera)

#### **EXPERIENCE**

# Wells Fargo International Solutions Private Ltd

Hyderabad, India

# Program Associate/ Software Engineer

**July 2023 – August 2024** 

- Incorporated emerging technologies into mainstream banking uses as part of the Digital Technology and Innovations team including but not limited to natural language processing, computer vision, augmented reality
- Explored implementation and effects of 4-bit / 8-bit quantization of Large Language Model (Llama-2) on various tasks such as question answering, information extraction, summarization solely using CPU on GCP to reduce resource usages by up to 50%. Received Manager Spotlight Award for the same
- Showcased innovation on prototypes of AR based bill payment solution and algorithmic conversion of digital flowchart to more computer-processable formats using computer vision to allow simpler extraction of information

#### Nokia Telecommunications

Noida, India

#### **Data Science Intern**

**August 2022 - October 2022** 

- Studied on-field parameter and fault signal correlation under Nokia's Radio Frequency (RF) Optimization Project
- Utilized immense raw source data files and applied Data Analysis to determine prime factors leading to faults being raised, automating a process previously done manually by engineers thereby reducing network downtime

# MateRate Education

New Delhi, India

## **Machine Learning Research Intern (Remote)**

**December 2021 - June 2022** 

- Improved enterprise's existing pipeline for handwritten image recognition to make it more suitable for mathematical symbols using PyTorch by skimming current research and incorporating their techniques
- Achieved ~2% improvement in accuracy through experiments involving Gaussian blurring, de-skewing, deslanting input images by extensively testing on both public datasets as well as on raw self-written images

## **RESEARCH & PROJECTS**

# Financial Modelling

January 2024 - present

• Independently covered important financial concepts and implemented many of them in Python using Jupyter such as option pricing modelling, volatility modelling, VAR modelling, yield curve modelling

# Financial Crisis Analysis, (Economic Growth and Distribution, IIT-D)

February 2023 - April 2023

• Collaborated in a team of 3 to make a research-based report on onset, unravelling and effects of Global Financial Crisis of 2008 by analyzing key economic factors. Particularly explored consequences of the same for India

## **Finance Exploratory Project,** (Intro. to Financial Markets, IIT-D)

March 2022 - April 2022

• Led team of 5 in analyzing success of digital payments in India in form of unified payments interface. Surveyed more than 100 people to statistically determine most significant success factor for their widescale acceptance

# **Programming Projects**, (IIT-D)

September 2021 - April 2023

• Coded gradient descent, Linux shell using C, N-gram sentence completion model, memory allocation algorithms

## **EXTRACURRICULARS & OTHER INFORMATION**

Languages: Hindi (fluent), Bengali (fluent), Spanish (basic)

Interests: Chess (nationals; college club), Quizzing (college club), Poker, Flute, Swimming, Table Tennis, Lawn Tennis