

# ABHIRUP GUHATHAKURTA

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## EDUCATION

**MA, Economics**, Indian Institute of Foreign Trade, Kolkata Expected June, 2025  
Relevant Coursework: Mathematics, Time Series Econometrics, Banking and Financial Intermediation, Derivatives and Risk Management, Investment Theory, Quantitative Financial Modelling Advanced Macroeconomics.  
GPA: 8.08 (Semester 3)

**BSc, Economics**, St.Paul's Cathedral Mission College, University of Calcutta September 2020 - August 2023  
GPA: 8.44

## SKILLS AND TECHNOLOGIES

**Data Science and Analytics:** Jupyter Notebook, Pandas, Matplotlib, Plotly, Seaborn, SciPy, Statsmodels, Streamlit

**Languages and Software:** Python, MS Excel, E-Views, STATA

**Databases:** MySQL, PySpark

**Soft Skills:** Attention to detail, Team-player, Time Management, Effective Communication, Entrepreneurial Mindset

## EXPERIENCE

**Techno Functional Consultant Intern** July, 2024 - Present  
Infisum Modeling *Remote*

- Explored Zero-Knowledge Machine Learning (ZKML) for privacy-preserving inference in global healthcare; assessed model complexity reduction on clinical data, informing efficient decentralized ML design.
- Contributed to a zero-knowledge proof framework (ZKP) for encrypted trade finance data by designing secure API schemas, enabling compliant and privacy-preserving transaction verification.

**Research Intern** June, 2024 - July, 2024  
Ministry of Commerce and Industry *Delhi*

- Mapped workforce skill gaps in the services sector using labor statistics and industry reports; determined that 15% of roles require upskilling in emerging technologies like AI and blockchain, supporting national reskilling initiatives design.
- Compiled an in-depth report on WTO Trade in Services negotiations by synthesizing member country proposals and minutes; insights contributed to evidence-based policymaking and international negotiation strategy.

## PROJECTS

**Impact of Central Bank communications on Inflation in India (Natural Language Processing, Sentiment Analysis, GMM Econometric Modeling, Time Series & Macro-Econometrics)**

- Developed a GMM-estimated Hybrid NK Phillips Curve using NLP sentiment from 19,000+ RBI communications to show central bank tone's impact on inflation.

**Loan Approval Prediction Analysis (EDA, Machine Learning, Data Visualization)**

- Built a Python loan prediction model - performed EDA, data cleaning/imputation, feature encoding, and trained Logistic Regression, Decision Tree, and XGBoost models with 5-fold CV.

**Stock Price Simulation (Python, Monte Carlo Simulation, Data Visualization, EDA, Streamlit)**

- Implemented a user-friendly Streamlit interface for a Python-based stock price simulator, incorporating adjustable parameters for real-time market visualization.

**Dashboard App for visualizing Inflation (Python, Data Visualization, Streamlit)**

- **Interactive Inflation Dashboard:** A comprehensive Streamlit web app featuring 12 interactive visualizations analysing inflation trends across sectors, time, and geography using CPI data. .

## ACHIEVEMENTS AND LEADERSHIP EXPERIENCE

- **Senior Coordinator** - IIFT Analytix Club
- Achieved 1st rank in UG Economics at college level.
- Led a team of engineers and developed Trinayan, a voice-assisted wearable that assists the visually impaired to accurately identify currency denominations on Indian banknotes for HaRBInger 2024, organized by the RBI.