

# ISHA KHURANA

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Financial engineering student with professional experience in project management and data modeling. Seeking full time opportunity for a quantitative or analytical role starting December 2020.

## EDUCATION

### Rochester Institute of Technology, New York

August 2019 to December 2020

Masters of Science in Computational Finance (STEM) ; GPA: 3.94/4.0

Coursework: Financial Analytics (R programming), Mathematics of Finance I & II, Advanced Derivatives, Debt Analysis, Equity Analysis, Business Analytics (Python), Data Management & Analytics

### Amity University, India

July 2018 to June 2019

Post Graduate Diploma in Global Financial Markets  
Coursework: Management Functions & Behavior, Capital Markets, Equity & Derivatives, Mutual Funds & Asset Management, Merger & Acquisitions, Treasury & Risk Management, Forex Markets & Currency Derivatives.

### University of Delhi, India

July 2014 to June 2017

Bachelor of Commerce (Honours)

Coursework: Business Organization & Management, Financial Accounting, Micro & Macro Economics, Business statistics, Business Law, Corporate accounting, Cost accounting, Financial Management, Income Tax Law, Business Mathematics, Fundamentals of Investing.

## SKILLS

**Financial Modelling:** Derivatives Pricing, Asset Pricing, Risk Modelling, Numerical Modelling, Portfolio Analysis & Management

**Languages / Software::** Python, R Programming, Tableau, MATLAB, SPSS, Qualtrics, Excel, Jupyter Notebook, R Studio, SQL, Power BI, Oracle, Git

**Financial Databases::** Bloomberg, WRDS, Yahoo Finance

## CERTIFICATIONS

### Certified Management Accountant (CMA)

Institute of Management Accountant | IMA, US  
Credential Number: 72921

### Bloomberg Market Concepts (BMC)

Bloomberg LP

## AWARDS

Awarded Turri & Browne Business scholarship for academic excellence by RIT

Awarded 40% annual merit scholarship by RIT

Received scholarship for excellent academic performance in undergrad by Reserve Bank of India

## ORGANIZATIONS AND CLUBS

Women in Business (RIT, NY)

Institute of Management Accountant Rochester Chapter

Institute of Management Accountant Delhi Chapter

## PROJECTS

### Covenant Violation Finder (Python & MATLAB) (Git):

-Extracted 10-Q and 10-K filings of US firms from SEC EDGAR database, conducted textual analysis to identify filings with possible covenant violation to generate descriptive statistics and correlations using WRDS dataset.  
-Examine the determinants of covenant violations.

### Fiscal Stress Score (Python) (Git):

-Imitated the computation model, by 100%, for calculating fiscal stress score developed by Office of New York State Comptroller (OSC) to provide stress scores for each town in New York state.  
-The score is calculated based on financial indicators/ratios and used for various trend analysis using Exploratory Data Analysis for consultancy services.

### Wait time modeling for traffic at US-Canada Border (Python) (Git):

-Examine the effect of date/time and weather on the wait time that a traveler faces while crossing US-Canada border using data from Government of Canada for wait time and US government data for weather. Exploratory Data Analysis is used for numeric and visual analysis to compute the regression results.  
-Built a 55% accurate logistic regression to predict wait time at specific hours or weather type using scikit-learn package, to help travelers analyze/plan their trip in advance.

### Default Probability in Marketplace Loans (Python) (Git):

-Conducted Exploratory Data Analysis and created a presentable descriptive analytics report on the LendingClub data using pandas profiling package in Python.  
-Built a 73% accurate logistic regression model using scikit-learn package to predict loan default probability in Marketplace Loans based on factors explaining default like loan purpose, annual income, current housing situation, interest rate, credit history, indebtedness and interest rate.

### Predicting Stock Market (Python) (Git):

-Performed sentiment analysis, using Natural Language Processing (NLP) in Python (via NLTK library), on posts and comments from Reddit in order to assess their influence on stock market movements.  
-Compared the posts and market trends from daily to hourly to precision of second's changes.

### Factors pertaining to determinants of Audit fees (Python) (Git):

-Exploratory Data Analysis (EDA) and Regression analysis with 60% accuracy on predicting what characteristics/factors are best in explaining the variation in Audit Fees of a company, individually and all together using Compustat & Audit Analytics database.  
-Amount of fees paid to external auditors being of great importance to the stakeholders, this model can help companies to assess fees in advance.

### Pricing Derivatives (R & MATLAB) (Git):

-Used Monte-Carlo & Black Scholes methods for pricing options in complex situations where the payoff is path dependent (e.g. Lookback options, Asian options and Spread options) and options where the payoff is dependent on a basket of underlying assets (rather than just a single asset).  
-Developed various functions to calculate price of various derivatives with almost 100% accuracy.

### **Portfolio Optimization (R & SAS):**

-Identified optimal asset allocation for a portfolio by applying Mean-Variance portfolio optimization and Monte Carlo simulation techniques. Thereby, maximizing the total return of the portfolio at the given risk by 50%.  
-Used ggplot2 in R to plot mean-variance for the feasible set of portfolios to visualize the highest sharpe ratio.

## WORK EXPERIENCE

### Rochester Institute of Technology, New York Graduate Assistant

September 2019 to May 2020

- Working on various research papers, which involves data extraction, cleaning and transformation via python scripts.
- Apply various data transformation techniques to perform statistical and factor analysis using SPSS, R, Python, Qualtrics & Excel.

### National Collaborative Center for Facility Based Newborn Care, India Accounts Officer

August 2017 to July 2019

Project under the aegis of Ministry of Health and Family Welfare, Government of India to establish, promote and improve facility based newborn care in India.

- Book-keeping in Tally ERP 9.0; Manage payroll accounting and inventory management.
- Prepare quarterly and yearly budgets and financial reports to sanction funds for the project.
- Managed to integrate to "Public Financial Management System" from the old accounting & finance system in 2 weeks.
- Collaborate with more than 1000 trainers and trainees nation wide to handle their expenses and reimbursements.

### Chokoking.in, India Co-Founder

October 2016 to June 2017

Food Industry based startup.

- An e-commerce venture operating in food industry that achieved a loyal customer base with 60% repeat orders.
- Conducted market research by analyzing data through surveys.
- Website management and developed strategies for performing effective SEO.
- Designed customer feedback mechanism through e-commerce & m-commerce.