# 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 February 2021.

## **EDUCATION**

## Rochester Institute of Technology, New York

August 2019 to December 2020 Master 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 &

#### 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 (Honors) 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

Institute of Management Accountant Chapters

- New York Chapter (2020 Present)
- Rochester Chapter (2019 2020) Delhi Chapter (2017 2019)

Women in Business (RIT, NY)

#### **PROJECTS**

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

• Extracted 10-Q and 10-K filings of US firms from SECEDGAR database, conducted textual analysis to identify filings with possible covenant violation to generate descriptive statistics and correlations using WRDS dataset.

### 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.

#### Database Management System (SQL & Oracle) (Git):

- Created an oracle application for Student-Course Evaluation and Instructor Performance Evaluation.
- Designed a database solution in apex oracle for managing inventory and implementing checkout process of a small international grocery store.
- · Worked full stack from front end (creating & designing the UI) to back end (creating tables). Fetched complex data from multiple tables using SQL queries.

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

- · 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.
- Conducted Exploratory Data Analysis and created a presentable descriptive analytics report on the LendingClub data using pandas profiling package in Python.

#### 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 R(ggplot2) to plot mean-variance for feasible set of portfolios to visualize the highest sharpe ratio

## 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 posts and market trends for varied timeframes such as daily, hourly, on per second basis, etc.

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

- · Predicting what factors are best to explain the variations in Audit Fees of a company, both individually and all together, from Compustat & Audit Analytics database via Exploratory Data Analysis (EDA) and Regression analysis with 60% accuracy.
- This model can help companies to assess fees (paid to external auditors) in advance, thereby proving helpful to the stakeholders

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

· Used Monte-Carlo & Black Scholes methods for pricing options in complex situations where the payoff is either path dependent (e.g. Lookback options, Asian options and Spread options) or is dependent on a basket of underlying assets (rather than just a single asset) with 99.99% accuracy.

### **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.
- · Migrated to a new system, Public Financial Management System, from the old accounting & finance system in 2 weeks.
- · Collaborate with more than 1000 trainers and trainees nationwide to handle their expenses and reimbursements.

### Chokoking.in, India

Food Industry based startup.

Co-Founder

October 2016 to June 2017

- 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.