

# RAFAY MALIK

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## EDUCATION

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### University of Waterloo

September 2015 - April 2020

· Bachelor of Mathematics, Math/Financial Analysis & Risk Mgmt, CFA Specialization, Honours, Co-op

## SKILLS

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<b>Programming</b>	SQL, Python (NumPy, pandas, Dash, matplotlib, Bokeh, sklearn, plotly, kivy), VBA, SAS, VB.NET, XAML (WPF), Scheme, R, Matlab
<b>Tools</b>	HTML/CSS, Microsoft Office (SharePoint, Excel, Access)

## EXPERIENCE

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### TD Bank

January 2021 - Current

*Analytics Associate, Fraud Strategies*

*Toronto, ON*

- Developed fraud strategies leveraging decision trees and logistic regression to capture future potential fraud risk, optimizing precision and AUC metrics in imbalanced dataset
- Leveraged Python (pandas, numpy, openpyxl, pyodbc), SQL Server and Excel (VBA) to automate monthly reporting procedures, streamlining manual process time significantly
- Created automated reports to help digest data in a meaningful way, bringing visibility to data to create actionable insights

### TD Securities

September 2019 - December 2019

*Associate Intern, Equity Trading*

*Toronto, ON*

- Independently initiated and built interactive data visualization/analysis tool using Python (plotly, Dash, pyodbc, pandas) and SQL Server to highlight trading data including algorithm performance, volume/value analysis among other meaningful metrics for strategic decision-making
- Successfully developed Python script to simulate foreign exchange exposure scenarios for hedging analysis, yielding insights on which exposure limits offer increased profitability and decreased volatility
- Individually built numerous VBA macros and python scripts, majority self-initiated, to streamline processes and automate repetitive tasks including e-mail/web scraping, SQL bindings and invoice templating

### Milliman

January 2019 - April 2019

*Intern, Life Mergers & Acquisitions*

*Chicago, IL*

- Leveraged SAS to consolidate and manipulate life insurance data used for stochastic modelling
- Independently developed numerous VBA macros including tool to auto-generate SAS code required to read in raw datasets, handling datatypes and dynamic variable-naming, reducing time required by ~ 99%

### City of Hamilton

May 2018 - August 2018

*Data Analyst*

*Hamilton, ON*

- Individually developed two elaborate Python desktop applications from scratch (kivy, numpy, matplotlib, pandas, Bokeh) for traffic data analysis, visualisation and reporting on own initiative
- Created multi-purpose request tracking tool to streamline work requests within Traffic Department using UserForms/VBA in Excel to encourage workflow optimization

### Health Canada

January 2017 - April 2017

*Junior Business Analyst*

*Ottawa, ON*

- Assisted in building WPF application (.NET stack/XAML,VB.NET) for elaborate MS Word Add-in
- Successfully built locally-hosted website which included training materials and team information

## INTERESTS

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- Mathematics, Poker, Travelling