


# Fiona Liu

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## TECHNICAL SKILLS

**Programming:** SQL · Python · R · MATLAB · VBA · JavaScript · HTML · CSS · Flask  
**Analytics:** Python · Excel · Tableau · Power BI  
**Platform:** GitHub · Jupyter Notebook · Spyder · Visual Studio · Google Analytics · JIRA  
**Business:** CFA I · FRM I · Porter's Five Forces · SWOT · PEST · Agile & Waterfall Project Management  
**Modelling:** Machine Learning · Classification · Regression · Clustering · Ensemble Learning · Boosting · Deep Learning · A/B testing

## EXPERIENCE

### Alibaba Group

Hangzhou, China

Data Scientist

Nov 2023 – Sept 2024

- Led data-driven analysis across multiple departments to optimize operational efficiency, contributing to a **15% improvement** in supply chain logistics for Alibaba's e-commerce platform.
- Managed end-to-end business analysis for Alibaba's customer insights team, leveraging large datasets to extract actionable insights that drove a **12% increase in customer retention**.
- Collaborated with cross-functional teams, including product, engineering, and marketing, to implement data solutions that supported strategic decision-making, resulting in a **10% increase in revenue** for Alibaba's international e-commerce division.
- Spearheaded a project to develop **predictive models** for demand forecasting, reducing overstock and understock issues by **18%** through better alignment with market trends.
- Presented complex data findings to senior leadership and stakeholders, translating technical insights into strategic recommendations that enhanced Alibaba's competitive positioning.
- Utilized tools such as **SQL**, **Python**, and **Tableau** to analyze large datasets, automate reports, and create interactive dashboards for real-time performance monitoring across key business units.

### RBC

Toronto, ON

Associate Director, Capital Markets Analytics

Sep 2022 – Oct 2023

- Optimized counterparty credit risk processes using data analytics, driving significant process improvements.
- Developed a **Python-based model** to predict long-term bond rates, enhancing risk management decisions.
- Built a **credit risk model** to estimate **expected losses** on bank loans, aiding in more **informed credit decisions**.
- Automated a liquidity analysis process, reducing processing time and improving accuracy across multiple asset classes.
- Streamlined the USPR monitoring process, **cutting down processing time by 6+ hours** and **boosting data accuracy by 60%**.
- Collaborated with cross-functional teams to deliver data-driven solutions aligned with business goals.

Manager, Data Analytics

Mar 2021 – Sep 2022

Associate, Data Analytics

Jul 2019 – Mar 2021

- Created a **customer segmentation model** using Python to enhance service personalization and resource allocation.
- Launched a **web-based tool** for client and sales recommendations, improving decision-making and customer service.
- Established and led a Middle Office Service Team, optimizing collateral management and trade matching through automation.
- **Saved 90%** in processing time by **automating** reconciliation, reporting, and other processes using **VBA**, **Python**, and **SQL**.
- Led margin call management and reconciliation efforts, identifying risk areas and optimizing collateral strategies.
- Contributed to securing over **\$1 Billion** in new assets under administration by enhancing client experience and operational efficiency.

### BMO

Toronto, ON

Associate, Business Analyst

Jun 2018 – Jul 2019

- Leveraged data analytics to identify comprehensive insights, aiding in better risk management and decision-making.
- Achieved **F1 score of 89%** in predicting repayment abilities of credit applicants by **logistic regression** and **random forest models**.
- **Improved efficiency by 30% and reduced cost by 15%** by automating reconciliation process of data manipulation and strategy applying in **VBA**.

### TD

Toronto, ON

Lead Operations Officer

Jul 2016 – May 2018

- Implemented automation process by using **VBA macro** to reconcile settlement data, significantly **reducing processing time by 1 hour** and **minimizing human errors and risk incidents**.
- Extracted and analyzed data from **SQL server**, creating interactive data visualizations in **Tableau** to derivatives trade confirmation.

## EDUCATION

Master of Finance, Saint Mary's University

2012 - 2013

Bachelor of Science Information Engineering, Central South University

2008 - 2012