

# Jing Cao, FRM

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## EDUCATION

### Master of Financial Insurance, University of Toronto

Expected: Aug. 2023

- Rigorous training in data science, actuarial science, finance, and fintech.

### Bachelor of Applied Science in Engineering Science, University of Toronto

Sept. 2014 – Apr. 2019

- Engineering Mathematics, Statistics and Finance Option
- Dean's Honors List with Major GPA (Year 3&4): 3.63/4

## PROFESSIONAL WORK EXPERIENCE

### TD Bank, Toronto, Canada

Business System Analyst (TD Securities – Fixed Income & Currency Data Engineering)

Jan. 2021 – present

- Produced and maintained summary views for trading activities done in Ion and built pipeline to make views available to the desk with minimum manual intervention.
- Analyzed trade data coming from various databases such as Hadoop, HDFS, Druid using Jupyter, Python, Pyspark, SQL and created dashboards using visualization tools, e.g. Tableau, Apache Superset.
- Assisted with cloud deployment and production releases.

Developer Associate (TD Securities – Treasury Balance Sheet Management)

Jun. 2020 – Dec. 2020

- Created rules and testing scenarios in Docstore for TBSM feeds with SparkSQL.
- Managed aggregation feeds and mapped feeds from different databases.

Developer Associate (Canadian Banking Deposit Account System)

Jan. 2020 – Jun. 2020

- Developed queries in JCL and SAS to collect and analyze deposit account data in Mainframe.
- Managed DAS files and performed analysis for project cycles with Python and Node.js.

### Hydro One Inc., Toronto, Canada

Aug. 2017 – Aug. 2018

*Transmission Asset Management University Co-op Student*

- Defined short and long-term maintenance and replacement strategies for Transmission lines assets.
- Developed scopes of work for condition assessment and preventive maintenance.
- Scheduled and prioritized more than 10 maintenance programs and projects for transmission assets based on asset condition, cost budget, transmission reliability and field verification.
- Analyzed reliability data from performance database and condition data from Asset Analytics and SAP.
- Prepared for business planning and rate filing for both maintenance and capital drivers.

## SKILLS

- **Programming:** Python, PySpark, SQL, Java, JavaScript, R, SAS
- **Applications and Tools:** Jupyter, Git, Visual Studio Code, Dremio, Tableau, Apache Superset, Apache Hadoop
- **Databases:** MySQL, PostgreSQL, Oracle SQL, Apache Druid, MongoDB

## CERTIFICATIONS

- Financial Risk Manager (FRM) -- Certified by the Global Association of Risk Professionals
- Passed all 3 levels of CFA exam (Nov. 2021)

## RELEVANT ENGINEERING PROJECTS

### Project leader, Capstone Project: Portfolio Optimization Advising System (Python)

Sept. 2018 – Dec. 2018

Engineering Science, University of Toronto, Toronto, Canada

- Designed a robot-advisor Investment wizard to analyze and provide portfolio investment decisions.
- Developed a web app with Flask, JavaScript and Bootstrap to provide a framework for user interactions.
- Applied Fama–French 3-factor model and robust MVO to calculate return and variance with selected assets.