

# ANDY YAO

SOFTWARE ENGINEER

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## SUMMARY

Andy is a software engineer with 5+ years experienced in software development, databases, distributed systems, and capital markets. Andy has worked in front-office and middle-office technology teams, interacting with Sales/ Trading and Operations alike.

Andy is a Canadian citizen, and speaks English, Mandarin, Spanish.

## EMPLOYMENT

**BitMEX, Senior Trading Operations Engineer, Singapore / Vancouver, Canada** Jan. 2022 - Current

- Maintenance and support of KDB/Q based cryptocurrency spot/futures trading engine
- Refactor websocket feed handler with low latency Java architecture
- Developed automation tools for exchange engine operations
- Environment KDB/Q, Java, Python, microservices, Kubernetes, AWS, Ubuntu

**RBC Capital Markets, Software Developer, Toronto, Canada** July 2019 - Jan. 2022

### Risk Watch

- Lead the fix income risk dev. team for FRTB, responsible for maintenance and enhancement of Riskwatch risk sensitivity service.
- Cut batch application run time by 30% by removing bottlenecks, code refactoring
- Mentor new grads and junior developers on the team
- Environment Java Spring, Hadoop, Spark, HDFS, SQL Server, RHEL

### FICC Cash Analytics

- Transition the fix income pricing library to modern C++ tool chain
- Created a web tool used by desk quants to quickly access pricing results from several internal / external pricing libraries, allowed faster pricing error recognition
- Environment Python, React ES6, Nginx, Elasticsearch, C++, RHEL, Windows

### GELP Structured Notes

- Created custom python solutions to map RBC structure notes to market vendor's format. Allowed six category of structure notes to be published to new vendor platforms.
- Engage directly with structurers, quants, and sales across Toronto, New York, and London.
- Environment Java, Python, AngularJS, Jenkins, SVN, RHEL, FpML

**DMG Blockchain, Software Engineer, Vancouver, Canada** Oct. 2018 - June 2019

- Lead developer for IoT (internet of things) software system to control and monitor bitcoin miners
- Created alerter systems for notifying onsite technician on out of service miners.
- Mentored junior developers / co-ops.
- Environment Git, AWS tools (EC2, ECS, S3), Docker, Python Flask, React, NodeJS, Kafka, Influx, Grafana, Postgres

**RBC Capital Markets, Technical Systems Analyst Co-op, Toronto, Canada** May 2017 - Aug. 2017

- Prototyped an algorithm recommendation system for recommending articles to clients
- Created / modified SQL Server stored procedures for business analyst and QA
- Extract, Transform, Load (ETL) using SSIS tool to provide data for other business units
- Environment C# ASP.net, SQL Server, SVN

**Wood Group, Application Developer, Vancouver, Canada** May 2017 - May 2018

- Created Access database for automation through VBA, improved report accuracy saving estimated 200 man hours yearly.

**Engineer Cost Controller** May 2013 - Sept. 2016

- Monitored financial status of multiple engineering, procurement, and construction projects
- Prepared project status and financial reports for company's project managers

## SKILLS

**LANGUAGES:** KDB/Q, Python, ES6 Javascript, Java, Bash

**TOOLS / IDE:** IntelliJ, git, Vagrant, Postman, Docker, AWS, Postgres, tmux, Kubernetes

## EDUCATION

**Simon Fraser University**  
B.Sc Computer Science 2018  
Burnaby BC, Canada

**Queen's University**  
BA Economics 2012  
Kingston ON, Canada

**Canadian Securities Course**  
2015