

# CHRIS ROSS

## SENIOR SOFTWARE DEVELOPER





### PROFILE

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Senior software developer with significant finance experience. Strong interest in quantitative modelling and risk analysis. Well versed in modern tech stacks, and a proven ability to lead large scale software projects. Academic background in Computer Science.


### CONTACT

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-  London, UK
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-  [linkedin.com/in/chrisross](https://www.linkedin.com/in/chrisross)
-  [chrisross.com](http://chrisross.com)
-  [github.com/fightingsleep](https://github.com/fightingsleep)

### EDUCATION

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Bachelor of Science Honours  
Computer Science  
University of Saskatchewan  
 Awarded High Honours

### WORK EXPERIENCE

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#### **RBC Capital Markets, Senior Software Developer** MAR 2023 - PRESENT

- Developing a cloud-based analytics platform
- Strong focus on counterparty risk and XVA calcs
- Python, C++, Docker, Kubernetes, AKS, Argo
- Containerizing existing modelling library, and migrating projects to Linux
- Replacing existing proprietary workflow infrastructure with Argo Workflows
- Speeding up Monte Carlo simulations using dynamic scaling in the cloud
- Helping set up cloud-agnostic infrastructure to allow switching between Azure, AWS, and on-prem
- Increasing developer productivity through the introduction of dev containers

#### **FINBOURNE Technology, Engineer** AUG 2021 - FEB 2023

- Developed a cloud-based investment data management platform
- C# (.NET 6), Python, SQLite
- Modern tech stack: Docker, Kubernetes, AWS, Microservices, Rest APIs, Swagger, etc
- Maintained all open-source SDKs and tools
- Managed a small team of junior software developers
- Implemented connections to Bloomberg, and various other market data vendors
- Designed and implemented a marketplace for purchasing additional integrations to third-party services
- Created CI/CD pipelines (Concourse) and automated testing infrastructure
- Helped build out a new data-virtualization product

## SKILLS

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- **See my GitHub** for stuff that I've been working on: [github.com/fightingsleep](https://github.com/fightingsleep)
- Language agnostic. Familiar with most major programming languages
- Finance and quant modelling
- Docker, Kubernetes, AWS, CI/CD (Concourse), Git
- Unit & integration testing (pytest, NUnit, moq)

## PERSONAL PROJECTS

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### **Stock Price Path Brownian Motion Simulation (Web)**

- [bit.ly/46cFljZ](https://bit.ly/46cFljZ)

### **Bootstrap Zero Rates (Web)**

- [bit.ly/4i1yGOs](https://bit.ly/4i1yGOs)

### **Purchasing Power Parity Salary Converter (Web)**

- [bit.ly/3Xa55bf](https://bit.ly/3Xa55bf)

### **Vasicek Interest Rate Model Simulation (Web)**

- [bit.ly/42Gld49](https://bit.ly/42Gld49)

### **Simple Binomial Option Pricing Model (C++)**

- [bit.ly/3p1SSsF](https://bit.ly/3p1SSsF)

### **Simple Monte Carlo Option Pricing Model (C++)**

- [bit.ly/44339Ui](https://bit.ly/44339Ui)

### **Simple Black Scholes Calculator (Python)**

- [bit.ly/3NaEvdv](https://bit.ly/3NaEvdv)

## **TD Bank, Senior Software Developer**

MAR 2018 - JULY 2021

- Quantitative modelling team in the treasury department
- Worked on a financial modelling platform that is responsible for valuation, risk analysis, and hedging of the bank's assets and liabilities
- Lead several new software projects, and also performed mass refactoring/modernization of the treasury modelling library
- Programmed primarily in C# and C++, but also a bit of Python
- Created .NET Core applications that run on both Windows and Linux (in containers)
- Gained experience working with microservices, Docker, NServiceBus, RabbitMQ, and Kubernetes
- Used Microsoft SQL Server and MongoDB
- Used Git for version control, and Jira, Confluence, Bitbucket, Sourcetree for coordination & productivity
- Used CI/CD tools like Jenkins

## **Dell, Software Engineer II**

SEPT 2015 - SEPT 2017

- Worked in the data protection division
- Developed data-center backup & recovery software
- Programmed in C / C++ / C# on Windows and Linux
- Worked closely with database management systems like Microsoft SQL Server.
- Gained experience writing highly optimized and concurrent code that was responsible for processing petabytes of data