

Application Package

Yiyu Li

Title: Global Banking and Markets - GAFE Financial Engineering Internship/Co-Op - Fall 2023



Requisition ID: 176827

Join a purpose driven winning team, committed to results, in an inclusive and high-performing culture.

Term: September - December 2023

Application Deadline: 05/05/2023

There's no better way to kickstart your career than to do a co-op or internship with Scotiabank! During your work term, you'll have the opportunity to be part of a winning team, build your network, and discover what you love – all while getting paid to do it! There's a place for every type of student at Scotiabank and all that we ask for is that you have passion and strong AOO (Attitude, Ownership and Opportunity).

As part of the Global Capital Markets group, Global Analytics and Financial Engineering works closely with the trading and marketing groups to provide analytics, to help develop new product capability and are also involved with developing new business lines. The work is often structured as projects, and usually the projects are analytic, technological, or process-related in nature. The Co-op Analyst is required to focus on one or two specific product areas but can also be required to work on other business line initiatives as the priority changes in our dynamic trading environment.

Financial Engineering is a friendly and supportive group working within an exciting environment. You will gain valuable knowledge of financial markets and instruments, while making substantial contributions to a large-scale trading operation. Previous co-op students have moved on to various positions within the organization following graduation. There are opportunities within GAFE for students to work with the Interest Rate Derivatives, Credit Derivatives, Equity Derivatives and Commodity Derivatives business lines.

Students hired for the semester will have access to numerous learning opportunities: a lecture series on the different business lines and how they work, access to the Global Banking and Markets Wiki where all models are documented, opportunities to talk to traders, marketers, and analysts to learn from their experiences.

Is this role right for you? In this role, you will:

- Assist the development and testing of cutting-edge derivatives pricing models
- Build quantitative tools for trading and structuring desks
- Build and maintain infrastructure processes for new business lines
- Ad hoc investigations for trading and marketing desks
- Conduct Mark-to-Market impact and sensitivity analysis for different models
- Provide support to the trading and sales desks

Do you have the skills and requirements that will enable you to succeed in this role? – We'd love to work with you if:

- You are currently enrolled in post-secondary education.
- You love to learn and envision yourself working for an international organization that heavily invests in your future.
- You enjoy being involved in extracurricular activities such as conferences, clubs, competitions, and/or hackathons.
- You have solid C++ programming skills. Knowledge of Java, Python, Shell scripts, or Excel is a plus.
- You have good math skills, knowledge of numerical methods and derivatives products a plus.
- You have strong analytic and problem-solving skills.
- You have strong interpersonal skills, results oriented and a team player.
- You are able to work well in a fast-paced environment with changing priorities.
- You are currently enrolled in a Software Engineering, Computer Science, Engineering, Mathematics, Statistics, Business/Finance, Actuarial Science or other quantitative disciplines.

What's in it for you?

- You'll be part of a diverse, collaborative, innovative, and high-performing team.
- In-depth training to prepare you for the role, as well as ongoing coaching and feedback to help you succeed!
- Exclusive student events such as Scotia Student Day, Lunch & Learns, leadership panels, and much more!
- Bank-wide orientation to learn more about Scotiabank and gain exposure to senior leadership across the organization.

This internship will offer you an excellent opportunity for learning and personal development, especially to those who wish to gain exposure to global capital markets their related technologies. Throughout your term you'll also have access to skill-building modules, as well as challenging work-integrated learnings - all of which come together to create a stimulating environment where you will have the chance to thrive. We want you to be a sponge and take it all in, bring your great attitude, always be authentic, and own every opportunity that comes your way. This is your time to shine.

How do I apply?

For students applying to our internship/co-op or new graduate programs, we do not require resumes! We believe in evaluating you through relationships over resumes

and are focused on learning about who you are and what you're interested in to uncover your true potential. Instead, we ask that as part of your application you complete the below:

1. Complete your **PLUM Profile** [here](#) and save as a screenshot.
2. Complete a short one-way **video interview** [here](#).
3. **Apply** to the role and when the application asks for your resume, instead upload the screenshot of your PLUM Profile.

To be considered for student opportunities at Scotiabank, Tangerine, and MD Financial you must complete **all steps above.*

Location(s): Canada : Ontario : Toronto

Scotiabank is a leading bank in the Americas. Guided by our purpose: "for every future", we help our customers, their families and their communities achieve success through a broad range of advice, products and services, including personal and commercial banking, wealth management and private banking, corporate and investment banking, and capital markets.

At Scotiabank, we value the unique skills and experiences each individual brings to the Bank, and are committed to creating and maintaining an inclusive and accessible environment for everyone. If you require accommodation (including, but not limited to, an accessible interview site, alternate format documents, ASL Interpreter, or Assistive Technology) during the recruitment and selection process, please let our Recruitment team know. If you require technical assistance, please [click here](#). Candidates must apply directly online to be considered for this role. We thank all applicants for their interest in a career at Scotiabank; however, only those candidates who are selected for an interview will be contacted.

works cited:

Scotiabank. "Global Banking and Markets - GAFE Financial Engineering Internship/Co-Op - Fall 2023." 4 months. Scotiabank Jobs, 17 Apr. 2023.

<https://jobs.scotiabank.com/job/Toronto-Global-Banking-and-Markets-GAFE-Financial-Engineering-InternshipCo-Op-Fall-2023-ON/569462817/>

April 17, 2023

Scotiabank
44 King Street West, Scotia Plaza 8th Floor,
Toronto, ON, CA, M5H 1H1

**Re: Global Banking and Markets - GAFE Financial Engineering
Internship/Co-Op - Fall 2023**

Dear Hiring Manager,

It is with great enthusiasm that I submit my application for the Financial Engineering Intern role at Scotia Bank. As a fourth-year Computer Science undergraduate student at the University of British Columbia, I am excited about the opportunity to assist in developing and testing cutting-edge derivatives pricing models, building quantitative tools for trading and structuring desks, and conducting ad hoc investigations for trading and marketing desks.

I am always eager to learn new technologies and push my boundaries. I love gaining hands-on experience and building innovative applications. For instance, I taught myself full stack development skills by building a web app (Hair Angel). Additionally, I developed a blood sugar tracking desktop app using Java to gain an in-depth understanding of object-oriented programming, test-driven development, and to become proficient with the Java language.

I am a proven team player and a fast learner, which I believe are essential requirements for this position. Prior to pursuing my current degree in Computer Science, I earned a Bachelor's and Master of Science degree in Nursing. During my studies, I worked as a research assistant at Nanyang Technological University and contributed to diabetes app assessment research. With a keen passion for technology, I took a second Bachelor's degree in Computer Science to pursue a career in the tech industry.

I am particularly drawn to Scotia Bank's reputation for innovation, leadership, and commitment to employee development. I am excited about the prospect of working for an organization that values its employees and invests in their growth and development. I am confident that the Financial Engineering Intern role at Scotia Bank will provide me with the opportunity to gain hands-on experience in the field of financial engineering, while contributing to the organization's success. Thank you again for considering my application, and I look forward to the opportunity to further discuss my qualifications with you. Please feel free to contact me at (+1) 236-989-9398 or rainyli817@gmail.com.

Sincerely
Yiyu Li.

Rainie (Yiyu) Li Expected Grad: 2024

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EDUCATION

- Bachelor of Computer Science(BCS)** | University of British Columbia 2021/09 - present
- Relevant Coursework: Computer Hardware and Operating Systems, Intermediate Algorithm Design and Analysis, Introduction to Relational Databases, Systematic Program Design
 - BCS Hackathon: Third Place
- Master of Nursing** | Central South University 2019/09 - 2022/06
- Bachelor of Nursing** | Central South University 2015/09 - 2019/06

TECHNICAL WORK EXPERIENCE

- Software Developer Intern** 2023/1 - present
Scotiabank-Tangerine Toronto, Canada
- A member of the DevOps team migrating a legacy **CI/CD pipeline** to a modern framework (Jenkins) to allow more comprehensive integration with current tools.
 - Automated and Optimized processes, using tools like **Jenkins, SonarQube, JIRA, Confluence, Artifactory, Docker.**
 - Developed scripts to automate clean-up activities in Artifactory, reducing manual effort by **80%** and scripted **Git hooks** to improve Git functions to streamline version control processes.

PROJECT

- Hair Style Club - Full Stack** | React.js, Node.js, Express, MongoDB 2022/06
- Built an app where users can share new hairstyles(image & comment) and the exact location of hair salon.
 - Designed an interactive and user-friendly front-end interface of 5 pages and constructed it with **React.**
 - Implemented back-end **REST API** with **Node.js** and **Express.**
 - Connected **MongoDB** database with **Mongoose** and stored information as collections.
 - Secured the application with basic **Authentication** by generating **JWT** on both ends.
- Welp - BCS Hackathon Project** | JavaScript, HTML, React Native 2022/03
- Built an Android App demo using **React & Javascript.** Users can add locations of washrooms they find in UBC, and include comments for each washroom. Located each washroom in Google Map with **Google Map API.**
 - Learned basic Android app development and programmed in a team of four. Responsible for designing and implementing **front-end** interface, including text field, button, background.
- Diabetes Management App - Desktop App** | Java, Test Driven Development, JUnit, Swing 2022/04
- Designed a desktop app using **Java** for diabetes patients to log their blood glucose level and medication.
 - Extended **JSON** class in Java library to store the blood sugar data.
 - Provided GUI interfaces using **Java Swing** to better improve the users' experience.
 - Employed test-driven development with **JUnit testing** and achieved 100% code coverage.
- SuperTransit - Full Stack App** | PHP, HTML, SQL 2022/11
- Built a web app that allows users to query various information about vehicles in the transit system.
 - Implemented projection, join and aggregation query with **PHP** and **SQL** in back-end.
 - Designed 3 web pages for queries with **CSS, HTML.**
- Image Filler - Desktop App** | C++ 2022/06
- Developed a desktop app to fill the image by each pixel in DFS and BFS.
 - Implemented functions to process and transfer image pixels to output changed images.

SKILLS

Language: Python, Java, C, C++, JavaScript, TypeScript, CSS, HTML, R, SQL, C#
Frameworks/Techs: React, Express, Node.js, RESTful, MongoDB, Numpy, Pandas, Git

From: Yiyu Li<rainyli817@gmail.com>
Sent: April 17, 2023
To: Geoffrey Tien<gctien@cs.ubc.ca>
Subject: Reference Request

Dear Prof Geoffrey,

I hope this message finds you well. I am writing to request a reference letter from you for a job application I am submitting to Scotiabank for the Financial Engineering Co-op Student role. As my computer science professor and former advisor, I believe that you can provide valuable insights into my academic and professional abilities that will be helpful in my job search.

During my time in your CPSC 213 C++ class, I gained a solid understanding of programming fundamentals and applied them to solve complex problems. Your guidance and expertise helped me develop the technical skills that I believe will be beneficial in a role at Scotiabank. Additionally, your emphasis on attention to detail and time management skills have helped me to excel in both individual and group projects.

As someone who has worked in UBC, I believe you have a unique perspective on what employers are looking for in potential employees. Your endorsement of my work ethic, problem-solving abilities, and technical expertise would greatly enhance my job application and give me an advantage in the hiring process.

If you are able to write a reference letter for me, I would be grateful. I can provide you with any additional information that you may need, such as a copy of my resume, job description, or other relevant details. The deadline for the application is May 5, so any assistance you can provide would be greatly appreciated.

Thank you for your time and consideration. I look forward to hearing from you soon.

Sincerely,

Yiyu Li

From: Yiyu Li<rainyli817@gmail.com>
Sent: April 17,2023
To: Karanpreet Kaur<kkaur@tangerine.ca>
Subject: Reference Request

Dear Karanpreet Kaur,

I hope this message finds you well. I wanted to reach out to you as I am currently applying for a financial engineering coop student role at Scotiabank, and I was hoping to discuss the possibility of obtaining a reference letter from you.

As you may recall, I had the privilege of working under your guidance for four months in the DevOps team at Tangerine, where I served as a co-op student. During my time on your team, I took on the responsibility of automating our DevOps tools, and I was committed to ensuring that our projects were delivered on schedule and met the highest standards.

Given your firsthand knowledge of my technical abilities, work ethic, and performance, I believe that a reference letter from you would be incredibly beneficial to my application. I would be grateful if you could speak to my strengths in the areas of teamwork, attention to detail, and eagerness to learn new skills.

If you are willing to provide a reference, I would be delighted if you could address the letter to the hiring manager at Scotiabank, and let them know that you are available to provide any further information or clarification that may be required.

Thank you very much for considering my request. I truly appreciate your time and support.

Sincerely,

Yiyu Li

From: Yiyu Li<rainyli817@gmail.com>

Sent: April 17,2023

To: Masoud Farmanara<mfarmanara@tangerine.ca>

Subject: Reference Request

Dear Masoud,

I hope this letter finds you well. I am writing to request a reference letter from you for a job application I am submitting to Scotiabank. As you know, I had the privilege of working with you for four months in the DevOps team as a co-op student. During that time, I was inspired by your extensive technical knowledge and your ability to effectively manage devops tools.

Your 25 years of work experience has clearly demonstrated your proficiency in the field of DevOps, and I feel fortunate to have had the opportunity to work with you and learn from your expertise. Your guidance and mentorship have been instrumental in my growth as a DevOps professional and have allowed me to develop the skills required to succeed in this field.

I am applying for a Financial Engineering co-op student role with Scotiabank, and I believe that your reference would greatly benefit my application. Your reference would help showcase my skills and experience, particularly in managing devops tools, to the potential employer.

If you are willing to write a reference letter for me, please let me know, and I will provide you with any additional information you may need. I greatly appreciate your time and consideration.

Thank you in advance for your assistance.

Sincerely,

Yiyu Li