# Roland Zhao

(604)-728-0623 | rhzhao@seas.upenn.edu | linkedin.com/in/rolandzhao | rolandzhao.com | github.com/TrueNought

## EDUCATION

**University of Pennsylvania**                                          Philadelphia, PA
*Master of Computer Science*
**GPA:** 4.0/4.0
**Coursework:** Software Design, Databases, Data Structures & Algorithms, Computer Systems

**University of Toronto**                                          Toronto, ON
*BComm, Specialist in Finance & Economics, Minor in Computer Science & Math*
**GPA:** 3.73/4.0
**Honors:** C. L. Burton Open Scholarship, University College Alumni Scholarship, Dean's List Scholar, High Distinction

## SKILLS

**Programming Languages:** Python, Java, C, JavaScript, R, SQL
**Frameworks:** Node.js, React, Spring Boot, Express.js, Flask, GraphQL, Vue.js, REST APIs, Next.js
**Tools:** Git, Linux, Postman, Docker, PostgreSQL, MongoDB, Supabase, GitHub Actions

## EXPERIENCE

**CIBC**                                          Jul 2024 - Present
*Software Engineer*                                          *Toronto, ON*

- Collaborated with traders on the Interest Rate Swaps desk to migrate complex **Excel**-based pricing and risk models to **Python**, improving performance and reducing decision-making time for real-time market analysis.
- Authored an event-driven **Python API** that ingests trade data (FpML), applies caching to skip repeat valuations, and eliminates manual CSV exports, improving risk calculation time by **50%**.
- Transitioned pricing logic from Excel to a **Solace PubSub+** streaming engine, pushing results back to spreadsheets in real time and reducing workbook refresh time from 10s to 6s.

**Join Digital Technology**                                          Jan 2024 - Jun 2024
*Software Engineering Intern*                                          *Remote*

- Built 12 reusable front-end components such as charts and UI elements using **Vue.js** for a no-code dashboard, improving dashboard scalability for real-time monitoring in factories.
- Led the integration of a new **JavaScript** diagramming library into our existing dashboard which significantly reduced development time for new features and helped reduce editor load times by over **25%**.

**TD Canada Trust**                                          May 2022 - Aug 2022
*Software Engineering Intern*                                          *Toronto, ON*

- Designed and built high-performance REST APIs using **Java**, **Spring Boot**, and **Maven** to seamlessly integrate loyalty and reward points functionality for the TD mobile and web app that serves over **6 million** customers.
- Enhanced over **50+** existing API endpoints in close collaboration with the PM and QA teams, ensuring seamless integration with various system components and optimizing overall system functionality.
- Reduced CI pipeline time by **10%** by parameterizing **Postman** regression tests, parallelizing execution in **Jenkins**.

## PROJECTS

**Kanban Collab Board** | *Next.js, Supabase, TypeScript, Tailwind, shadcn/ui*

- Built a server-rendered Next .js App Router application that streams card updates via Supabase Realtime & Broadcast, delivering low drag-and-drop latency.
- Modelled boards, lists, cards, memberships in PostgreSQL with Row-Level Security and OAuth (Google, email magic-link); wrote Supabase Edge Functions for board cloning, JSON export, and scheduled archival.
- Established CI/CD pipeline (GitHub Actions → Vercel) running Jest unit tests, and Playwright end-to-end tests.