Colin **Lin**

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Experience

Stripe
Toronto, ON

Software Engineer — *October 2024 - Present*
- Built a **Python** service to host **agentic AI** apps, automating workflows and saving **1000+ hours** of manual review annually
- Reduced infrastructure costs by **10%** by building Python CLI tools to run **Databricks notebooks** on cost-efficient job clusters and implementing long-running cell alerts to curb idle compute usage
- Built a **Java gRPC** service for notebook uploads, unlocking cross-team functionality and increasing use case support to **60%**
- Led Ubuntu upgrade for notebooks clusters as part of a **100k+** host migration; mentored a new hire to assist with the rollout
- Enhanced integration tests with human identity support, boosting test coverage by **10%** and reducing incident risk

Konrad Group
Toronto, ON

Software Developer — *September 2023 - August 2024*
- Developed new frontend features for a major airline's flight booking application using **Vue.js**, impacting over **1 million** users
- Built online contests and promotional pages for a major real estate client using **Next.js** and **Contentful CMS**
- Accelerated internal IT processes by **300%** by automating manual tasks using **Python** and **Selenium**
- Mitigated fraudulent contest entries by implementing browser fingerprinting using **JavaScript**

HSBC
Vancouver, BC

Cloud Full Stack Engineer — *December 2021 - December 2022*
- Developed cloud-based web apps for HSBC Wealth Compass and US Product Onboarding using **React** and **Redux**
- Engineered RESTful APIs and API Orchestration layer using **Java Spring Boot** and **Express.js** microservices deployed on **AWS**
- Reduced maintenance cost by 40% by migrating legacy JavaScript codebase to **TypeScript**
- Worked closely with a cross time-zone **Agile Scrum** team to support systems critical to Retail Banking across North America
- Mentored 3 new employees and interns on frontend development, API design, and advanced product knowledge

Ontario Institute for Studies in Education
Toronto, ON

Software Developer — *October 2021 - June 2022*
- Implemented new tools for collaborative learning software using **Angular**, **Fabric.js** and **Firebase**
- Established real-time data updates on virtual classroom whiteboards with over 30 concurrent users using **socket.io**
- Built a data collection framework for researchers to analyze classroom activity and generate reports

University of Toronto Scarborough
Toronto, ON

Software Developer — *September 2021 - February 2022*
- Analysed trends across global news sites by constructing data visualizations using **Python, pandas,** and **Matplotlib**
- Improved the efficiency of the Python website crawler by 50% by applying filters and caching data
- Served browser-accessible **Jupyter Notebooks** for researchers using Jupyterhub deployed on the cloud

Cineplex Digital Media
Toronto, ON

Software Developer — *September 2020 - April 2021*
- Led the development of **web applications** and digital signage for clients such as RBC and Scotiabank
- Adapted **HTML, CSS,** and **JavaScript** projects to serve over 30 different countries, currencies, and languages
- Automated manual waiver signing process by building a customer-facing portal using **React**

Education

University of Toronto
Toronto, ON

Honours Bachelor of Science in Computer Science — *September 2019 - August 2023*
- **GPA:** 3.88/4.0
- **Publications**: A Systematic Literature Mapping of COVID-19 Papers in Computer Science Education
- **TA**: CSCC09 Programming on the Web
- **Relevant Courses:** Software Engineering, Data Structures and Algorithms, Databases, Computer and Network Security

Skills

Programming	Java, Python, TypeScript, JavaScript, HTML, CSS, C, PHP, Swift, Kotlin, Go
Frameworks and Libraries	Next.js, React, Angular, Vue.js, Spring Boot, Node.js, Redux, NumPy, pandas, Selenium
Databases	MongoDB, MySQL, PostgreSQL, Firestore, Neo4j
Tools	Git, Jira, Docker, AWS, Firebase, nginx, Linux, Postman, Databricks