Ricky Luo

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EDUCATION

University of British Columbia

Bachelor's of Science, Major in Computer Science

Vancouver, BC

Expected Graduation: Apr 2026

• Courses: Software Engineering, Data Structures & Algorithms, Relational Databases, Computer Systems

EXPERIENCE

Boeing Jan 2024 - June 2024

Software Engineer Intern

Vancouver, BC

- Built a data display for 75 customers in **React** with requests through a **PostgreSQL** server using **SQLAlchemy**.
- Reduced load time for \sim 10k datapoint by optimizing API routing using **Python** in a **Flask** back-end.
- Enabled the deletion of datapoints by refactoring a feature and simplifying execution calls of a GCP Workflow.
- Achieved **Databricks** compatibility by configuring flight data worker output using **Pandas** and **Apache Spark**.

BMO Financial Group

Jan 2023 - Aug 2023

Software Engineer Intern

Toronto, ON

- Cut AWS deployment approvals needed by 87%+ (~\$55k/monthly savings) by implementing a boundary policy (BP) tooling solution using **Python** and **GitHub Actions**.
- Accelerated BP creation time by $33 \times$ by creating a parsing API with Babel, **Next.js**, and **Node.js**.
- Decreased the steps needed to view AWS details by 79% by developing a **React** dashboard, via **AWS SDK** calls.
- Monitored a CI/CD pipeline used by 24+ teams by setting up performance indicators with AWS CloudWatch.
- Improved code through **Jest** tests (83% coverage) and handling type assertions by refactoring to **TypeScript**.

PROJECTS

RiotBOT (League of Legends Discord Bot) | discord.py, Python, HTTPX, DynamoDB

- Developed a discord bot that uses Riot API with HTTPX to query user data such as match history and rank.
- Set up DynamoDB to store user information and query history to reduce API dependancy.

Slide2Study (Powerpoint to Notes Converter) | MongoDB, Express.js, React, Node.js, Next.js, Python

- Prototyped an application that uses OpenAI API to convert .pptx and Slides into simplified notes.
- Designed front-end using React and TailwindCSS and implemented user-authentication through Auth0.
- Deployed MongoDB to store user information and utilized Express to route queries to database.

PokémonQuiz (Quiz Form Web App) | JavaScript, React, Node.is, Axios, Material-UI

- Engineered a quiz-style web app that gives users a response based on the response the user inputs.
- Configured the front-end using React.js and bootstrapped with Material-UI for efficient and modern design.
- Performed API calls to the PokeAPI endpoint using Axios GET requests using data from user input.

REInfo (Reciept Tracker Web App) | Python, JavaScript, Flask, GCP, HTML, CSS

- Created an app that lets users to upload a receipt and automatically formulate everything into a spreadsheet.
- Devised a Python back-end using the Flask framework to enable GCP Cloud Vision and Google Sheets API.
- Implemented SQLAlchemy to store user data and usage history.

TECHNICAL SKILLS

Languages: Java, Python, C, C++, JavaScript, TypeScript

Frameworks/Testing: React, Next.js, Express.js, Tailwind CSS, Jest, Postman, JUnit

Technologies: Git, AWS (Amazon Web Services), GCP (Google Cloud Products), Node.js, Unix, SQL, NoSQL

Concepts: Test-Driven Development, Object-Oriented Programming, Agile Development, CI/CD