Iftier Rahman

rahman.iftier@gmail.com | linkedin.com/in/iftier-rahman | +1 (416) 464 - 7184 | github.com/iftier23

Education

University of Toronto Toronto, ON

Bachelor of Applied Sciences in Computer Engineering, PEY Co-op *Anticipated Graduation Date: April 2026*

Relevant Courses: Operating Systems, Linear Algebra, Calculus, Software Design and Development, Object-Oriented Programming, Data Structures and Algorithms, Computer Organization, Applied Deep Learning

Awards: Recipient of Amazon Future Engineer Scholarship worth $30,000

Technical Skills

Languages: Java, Python, JavaScript, TypeScript, C++, C, HTML, CSS, Verilog, Bash, Z shell
Tools: AWS, Git, UI/UX, CI/CD, Agile, Firebase, APIs, NodeJS, OpenCV, Docker, Linux, Scripting, FPGA
Libraries/Frameworks: JUnit, Mockito, TestNG, NumPy, Matplotlib, ReactJS, Pandas, Pytorch, CUDA

Experience

Amazon Web Services May 2024 – August 2024

Software Development Engineering Intern *Vancouver, BC*

- Architected and scaled a distributed workflow orchestration using **AWS Step Functions**, running up to **3,000 concurrent Lambdas** to backfill **350+ million schedules** in DynamoDB with new field across multiple regions
- Deployed and automated workflow orchestration infrastructure using **AWS CDK** and **CloudFormation** in **Typescript**, while leveraging **CloudWatch alarms and logs** to monitor updates, throttling, and failures
- Conducted **canary testing** in different environments using **TestNG** and **JUnit**; implemented robust security and permissions for internal **Java REST API**, ensuring secure, reliable performance across all environments.
- Authored a **comprehensive runbook** documenting the project, including troubleshooting steps, best practices, and monitoring strategies for **on-call engineers**

Amazon Web Services May 2023 – August 2023

Software Development Engineering Intern *Vancouver, BC*

- Developed internal **Java REST API** to list schedules by target for **AWS Eventbridge Scheduler**, utilizing a new target field for **customers** to efficiently retrieve schedules by target.
- Optimized **DynamoDB** data retrieval with a **Global Secondary Index (GSI)** based on the target field for targeted schedules, leading to a **30x** performance increase over filtered scan API calls
- Conducted **unit testing** using **JUnit** and **Mockito** for the internal **Java REST API**, achieving **98% code coverage** and ensuring validation of the API functionality
- Updated existing **REST APIs** to ensure created and updated schedules are populated with the target field in **DynamoDB**, enabling **100%** schedule retrieval of new schedules by the internal API

Projects

ReLive | *HTML, CSS, Javascript, Firebase, Cohere API, OpenAI API, Python, Google Cardboard*

- Created a VR photo album where users can explore their photos in 360° using Google Cardboard for UoftHacks 11
- HTML, CSS, JavaScript used to develop front-end, Panolens.js for VR experience, & Firebase for data storage
- Cohere and OpenAI APIs used to suggest songs based on ambiance of a photo for personalized experiences.

Pop-up Vaccine Clinic Locator | *HTML, CSS, Javascript, Figma, Beautiful Soup, Selenium*

- Over **500+ users**, displays all eligible pop-up & hospital clinics, given the first three digits of a user's postal code
- Built a web scraper using **Beautiful Soup** and **Selenium** to gather and format clinic data from **20+ sources**
- Created based on personal experience with long lines, iterated on feedback through community consultations

RookieXplore | *C++, OpenStreetMap API, GTK*

- Led a 3-member team to develop a map application using the **OpenStreetMap API**, providing route planning and location search features for new university students.
- Optimized routing algorithms with **A***, **Dijkstra's**, and **Multi-Dijkstra**, achieving a **50% reduction in route calculation time** and **30% faster performance** through multithreading.
- Designed an intuitive user interface with labeled information and dynamic previews, improving usability based on feedback from user testing.