Sagarika Rabindranath

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EDUCATION

University of Toronto — Expected Graduation May 2025
Bachelor of Applied Science in Computer Engineering, Minor in AI

EXPERIENCE

Amazon Robotics — May 2023 – July 2024
Software Development Engineer Co-op

- Developed a software application with **React** and **Java** with an Amazon-owned SDK to simplify the calibration process of Captron buttons in robotic workcells at Amazon FCs, achieving a **35% reduction** in workcell setup time for customers
- Created a configurable Java-based backend package template to expedite package creation for customers, including example workflows showcasing the interplay among SDK, backend, and frontend components
- Developed a **Kotlin** microservice for seamless projector integration, optimizing energy usage across **50,000** robotic workcells.This adjustment of laser state during idle periods will enhance cost efficiency, contributing to annual energy savings of **US $1.3 million**
- Developed a Kotlin microservice template streamlining customer onboarding and facilitating the creation of customized microservices, resulting in significant time savings for developers and customers

Royal Bank of Canada — May 2022 – August 2022
Software Engineer Intern

- Lead developer for talent management web app using **Django** and **React** to streamline the internal recruitment process, allowing recruiting team to analyze potential talent **30% faster**
- Effectively collaborated in a cross-functional team to scope web app and define business/development requirements by prototyping and using gap analysis
- Fine-tuned database design to optimize app performance and adaptability

PROJECTS

Speech Recognition for Accented Speech | *Machine Learning Project* — May 2023 – August 2023

- Led a class collaborative project aimed at enhancing speech recognition technology for individuals with diverse accents
- Applied innovative strategies and algorithms to address accent variations and improve speech recognition accuracy
- Worked closely with teammates to analyze accent patterns and implement solutions tailored to specific linguistic challenges
- Documented project methodologies and findings to share insights with peers and instructors

GIS Mapping Software | *Path Finding Project* — Jan 2022 – May 2022

- Developed a mapping software using **C++ STL** and OpenStreetMap database
- Implemented Dijkstra, greedy and simulated annealing algorithms to optimize the shortest path for the traveling salesman problem and placed in the top **20%** of the class
- Implemented autocomplete search functionality, and UI using **EZGL** and **GTK**, while following accessibility guidelines to make UI more inclusive

TECHNICAL SKILLS

Languages: Kotlin, Java, Python, C/C++, SQL (Postgres), Typescript
Frameworks: React, Django, JUnit, Material-UI, Smithy, EZGL, GTK
Developer Tools: Git, Docker, AWS, Module Federation, Jira

AWARDS AND ACHIEVEMENTS

Second Place Prize winner against 70 teams at NewHacks, IEEE UofT's hackathon
Third Place Prize winner at KuriusHack hackathon
Dean's Merit Award ($10,000) admission scholarship for academic excellence