

RISHAD LUTHRA

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Education

University of Waterloo

Bachelor of Computer Science, Co-op, with a Minor in Economics

September 2020 - August 2025

Waterloo, Canada

- **Relevant Courses:** Algorithms, Computer Networks, Data Structures, Database Systems and Management, Object Oriented Programming, Operating Systems, Software Design and Architecture, User Interfaces

Experience

TriviaLinked

Software Engineer (Part-time)

February 2025 – Present

Toronto, Canada

- Developed and refined core features for an iOS trivia game using **React Native** and **Supabase**, leading to a **16% increase in daily active users**.
- Implemented profile customization and player stats tracking features, boosting **user retention to 68%**.

Sun Life Financial

Software Engineering Intern – Secure Web Platform

May 2024 – December 2024

Toronto, Canada

- Implemented Single Sign-On in **Node.js**, **Express**, and **PostgreSQL** using Okta APIs with OAuth2.0 and OIDC, reducing manual logins by **67%** across protected company websites.
- Developed **GraphQL APIs** with **JWT authentication** to serve customer data and integrated **caching** to reduce response times by **90%**.
- Built a dashboard with **React** and **Express**, consolidating numerous communication channels to give customers a comprehensive view of their previous interactions with Sun Life agents.

Software Engineering Intern (Part-time) – Gen AI Platform

September 2024 - December 2024

- Secured an internal AWS Lambda service by implementing **AI guardrails** using **Role Based Access Control** to enforce company wide security policies and compliant usage of the service.

Harvard Medical School – Brigham and Women’s Hospital

Software Developer and Research Intern

September 2023 – December 2023

Boston, United States

- Spearheaded the development of a multi-threaded **C++** module for 3DSlicer, enabling real-time 3D surface reconstructions of a patient's anatomy during surgery. Software currently in clinical testing for broader adoption.
- Developed a **Python** program using **Mediapipe** for hand tracking and integrated it with the C++ module via **OpenIGTLINK** for real-time usage in surgeries.
- Leveraged **OpenCV** to generate and display real-time depth maps and 3D point clouds, providing surgeons with spatial data for improved control and accuracy during operations.

Mediaocean

Software Developer Intern

January 2022 – April 2022

Toronto, Canada

- Refactored **Python** code by employing the **Model View Controller** design pattern, reducing runtime errors by **40%** for over **100,000** clients worldwide.
- Developed **Pytest unit tests**, achieving approximately **95% code coverage**, to validate core application logic, improving system stability and preventing regressions.

Projects

Sun Life Elevate Cloud Hackathon (Winner) | AWS, Amazon Q

- Won the company-wide hackathon by developing Confluence-integrated **Amazon Q** chatbots using **AWS**.
- Leveraged **Retrieval-Augmented Generation (RAG)** and Access Control Lists to ensure secure, role-based responses from Confluence spaces. Enabled users to create Jira and ServiceNow tickets directly, with an estimated average time savings of approximately **\$10,300** per employee per year.

Beacon | Kotlin, Jetpack Compose

- Developed an Android app that facilitates real-time connections between users seeking assistance with basic tasks and nearby helpers, featuring a modern UI built with **Kotlin**, **Jetpack Compose**, and **MVVM** architecture.

Technical Skills

Languages: C, C++, Python, Kotlin, R, SQL, Racket, Bash, CSS, HTML, JavaScript

Frameworks/Tools: Node.js, Express.js, React, GraphQL, Apollo Server, Apollo Sandbox, OIDC, OAuth2.0

Developer Tools: Git, GitHub, GitLab, Bitbucket, Jira, SceneBuilder, Amazon Q