

Rithika Silva

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EDUCATION

University of Waterloo (GPA: 3.88)

Sept. 2021 – May 2026

Candidate for Honours Bachelor of Computer Science, Minor in Combinatorics & Optimization

Waterloo, ON

- Cybersecurity and Privacy Institute Student Member
- Analytics Group for Games and Sports
- Object-Oriented & Functional Programming, Data Structures & Algorithms, Operating Systems, Applied Cryptography

Chippewa Secondary School (98%)

Sept. 2017 - June 2021

High School Diploma

North Bay, ON

- Co-Valedictorian, Schulich nominee, Loran nominee, Partial IB, SHAD Alum, SHAD Co-Valedictorian, FIRST Robotics Dean's List Semi-Finalist.

TECHNICAL SKILLS

Languages: C++, C, Python, Go, Rust, Java, Bash, HTML/CSS, JavaScript, SQL, R, Racket

Developer Tools: Git, GitHub Actions, Gitlab CI/CD, Docker, QEMU, Valgrind, GDB

Frameworks and Libraries: gRPC/Protobuf, PostgreSQL, SQLite, Flask, GTest, Pytest, NumPy, Pandas

Soft Skills: Design Thinking, Public Speaking, Teamwork, Leadership

EXPERIENCE

Networking Software Developer Co-op | C++, C, Python

Jan. 2024 – April 2024

Ford Motor Company

Kanata, ON

- Developed software on the Connectivity Team for V2X, focusing on cross-device networking on Linux and QNX.
- Independently developed tooling that filters global vehicle diagnostic events to enable teams to determine key issues for investigation.
- Automated developer workflows, supported defect investigation, and implemented feature requests.

Software Development Student | C++, C, Python

May 2023 – Aug. 2023

BlackBerry

Waterloo, ON

- Developed software across two teams domains for BlackBerry IVY, an in-vehicle software platform.
- Programmed and maintained example artifacts for easy adoption for end users.
- Enhanced internal CI/CD infrastructure.
- Implemented client-focused tooling features for IVY SDK to streamline workflows and refine user experience.

Developer Co-op | Python

Sept 2022 – Dec. 2022

Arctic Wolf Networks

Waterloo, ON

- Spearheaded developing software that extracts information from the company Learning Management System using a REST API to use in the company Internal Reporting System.
- Collaborated with UX/UI developers to implement a proof of concept with complete documentation to facilitate integration.
- Optimized data collection code to improve performance by 400%.

PROJECTS

Obelisk API and Slifer | Go, Python, HTML/CSS, PostgreSQL

- Obelisk API: personal RESTful API for task management, personal statistics, and information storage. Incorporates CRUD operations, user-friendly endpoints, and key-based authentication.
- Slifer: mobile-first webapp for task management using Obelisk API.

Nova - The Lambda Calculus Interpreter | Go

- Lambda calculus interpreter written in Go using only the standard library.
- Uses LL(1) parsing, executes using normal order reduction, supports variable renaming to avoid capture, and custom expression shorthand.

README Profile LoL Stats | Python

- GitHub Action to populate a user's README Profile with their League of Legends statistics using the Riot API.
- Widget is customizable with different skins and choice of statistics to display.