

Rithika Silva

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EDUCATION

University of Waterloo (GPA: 3.86)

Sept. 2021 - May 2026

Candidate for Honours Bachelor of Computer Science,

Waterloo, Ontario, Canada

Minor in Combinatorics & Optimization

- Extracurriculars: Cybersecurity and Privacy Institute, Analytics Group for Games and Sports, Varsity Analytics Integrated Support Team
- Coursework: Operating Systems, AI/ML, Numerical Methods, Computer Networks, Cryptography, Compilers

TECHNICAL SKILLS

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

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

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

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

EXPERIENCE

Systems Software Intern | C++, C, Python

May. 2025 – Aug. 2025

NVIDIA

Santa Clara, California, USA

- Software bring-up of vehicle platforms and sensors for Autonomous Vehicles System Software Team.
- Develop middleware features for multi-computer and heterogeneous architecture.

Software Engineering Co-op | C++, C

Sept. 2024 – Oct. 2024

Huawei Technologies Canada Co. Ltd

Markham, Ontario, Canada

- Developed EDA infrastructure and optimized existing features for FPGA Routing Team.
- Requested early co-op term end due to personal circumstances.

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

Jan. 2024 – April 2024

Ford Motor Company

Kanata, Ontario, Canada

- 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 Co-op | C++, C, Python

May 2023 – Aug. 2023

BlackBerry

Waterloo, Ontario, Canada

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

Software Developer Co-op | Python

Sept 2022 – Dec. 2022

Arctic Wolf Networks

Waterloo, Ontario, Canada

- 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.

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 users README Profile with their League of Legends statistics using the Riot API.
- Widget is customizable with different skins and choice of statistics to display.