

Rithika Silva

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EDUCATION

- University of Waterloo (GPA: 3.85)** Sept. 2021 - May 2026
Candidate for Honours Bachelor of Computer Science, Minor in Combinatorics & Optimization Waterloo, ON
- Extracurriculars: Cybersecurity and Privacy Institute, Analytics Group for Games and Sports
 - Coursework: Operating Systems, Applied Cryptography, Compilers, AI/ML, Statistics, Numerical Methods
- Chippewa Secondary School (98%)** Sept. 2017 - June 2021
High School Diploma North Bay, ON
- Co-Valedictorian, Schulich and Loran nominee, IB, SHAD, FIRST Robotics Dean's List nominee

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

- Software Engineering Co-op | C++, C** Sept. 2024 – Oct. 2024
Huawei Technologies Canada Co. Ltd Markham, ON
- Develop EDA infrastructure, program FPGA functionality, and R&D optimized algorithms.
 - 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, 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 Co-op | 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 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, 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.
- 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.