Rithika Silva

rithikasilva@outlook.com | linkedin.com/in/rithikasilva | github.com/rithikasilva | rithikasilva.ca

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
- Coursework: Operating Systems, Applied Cryptography, AI/ML

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: gRPC/Protobuf, PostgreSQL, SQLite, Flask, GTest, Pytest, NumPy, Pandas
Soft Skills: Design Thinking, Public Speaking, Teamwork, Leadership

EXPERIENCE

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

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 populates 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.