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 and Frameworks: Git, GitHub Actions, Gitlab CI/CD, Docker, gRPC/Protobuf, QEMU, PostgreSQL, SQLite, Flask, Valgrind, GDB, 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*
- Contributed to the Vehicle Ethernet Link Team for V2X, focusing on cross-device networking on Linux and QNX embedded systems.
- 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 while enhancing internal CI/CD infrastructure.
- Implemented client-focused tooling features 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 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.