

SUREN KULASEGARAM

🏠 surenkulasegaram@gmail.com | 🌐 [Website](#) | **in** [suren-kulasegaram](#) | 📀 [suren2003](#)

EDUCATION

Bachelor of Engineering in Computer Systems, Co-Op Option

Expected Graduation: April 2026

Carleton University, Ottawa, ON

- **4.0 GPA** with Dean's Honour List
- Related Coursework: Algorithms and Data Structures, OO Software Development (Java), Real Time Systems (C), Operating Systems (Linux/Unix & C), Computer Organization and Architecture, Multivariable Calculus

EXPERIENCE

5G Baseband Embedded Software Developer Intern, Ericsson, *Ottawa, ON*

May 2024 - Dec 2024

- Developed features to enable sub-argument-driven configuration selection, simplify configuration process, and support to generate multiple testcases for a Python tool that does automated YAML test case generations
- Developed and customized a test framework by porting it from a legacy repository, adapting it to ensure compatibility, seamless integration, and successful compilation within the new codebase
- Fostered an Agile development ecosystem by participating in stand-ups, code reviews, and the software development life cycle, ensuring consistent delivery of high-quality software

Test Automation Software Developer Intern, Nokia, *Ottawa, ON*

Jan 2024 - April 2024

- Enhanced test coverage of a React-based web app by migrating and redeveloping 13 full-stack test suites, ensuring compatibility with the new framework using JavaScript, Node.js, MochaJS, and REST APIs
- Verified the successful implementation of proposed bug fixes by conducting thorough manual testing across various scenarios and environments

Test Automation Software Developer Intern, Nokia, *Ottawa, ON*

May 2023 - Sept 2023

- Developed and enhanced front-end and back-end test automation frameworks for regression testing of Nokia's NSP web application, leveraging JavaScript, Node.js, MochaJS, and REST APIs to improve test reliability and efficiency
- Enhanced product quality and stability by resolving **10+** product defects identified in regression tests by utilizing debugging techniques and core web principals on the test automation code and web app

PROJECTS

Operating System Scheduler | C, pthreads

- Developed a simplified OS scheduler emulating the Linux Completely Fair Scheduler and a Producer/Consumer model by utilizing C and multi-threading for efficient and concurrent process management
- Minimized priority queue sort time by developing an Insertion Sort leveraging its efficiency with nearly sorted data and small process count on priority queues
- Prevented conflicts and potential deadlocks with concurrently running threads by designing and enforcing thread synchronization protocols utilizing mutexes

Task Management Discord Bot | JavaScript, Node.js, Notion & Discord API

- Developed a Discord bot which helped a peer increase their GPA by **20%** using Discord and Notion APIs to track tasks from a Notion calendar and display them in a user-friendly format on a Discord channel
- Ensured bot responsiveness while handling multiple User and API requests by implementing asynchronous programming (async/await)

Dataset Analyzer | Python

- Led a 4-person team to create an application for analyzing CSV data which realized a **97%** project grade by developing code, coordinating weekly meetings, conducting code reviews, and ensuring deadlines were met
- Developed functions for file operations, data sorting, and searching by utilizing Python and the CSV module

SKILLS

Languages	Python, JavaScript, C/C++, PHP, Java, HTML, CSS, SQL, Assembly, YAML
Tools/Frameworks	Node.js, MochaJS, React.js, Git, Gerrit, Selenium, OpenStack, Bootstrap, Linux, Jenkins
Soft Skills	Agile, Communication, Time management, Teamwork, Leadership, English, French, Tamil