SUREN KULASEGARAM

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EDUCATION

Bachelor of Engineering in Computer Systems, Co-Op Option   Expected Apr 2026
Carleton University, Ottawa, ON
- **4.0 GPA**, Dean's Honour List
- Relevant Coursework: Algorithms & Data Structures, OO Software Development (Java), Real-Time Concurrent Systems (C++), Operating Systems (Linux/Unix & C), Computer Organization and Architecture, Multivariable Calculus

EXPERIENCE

Software/Test Developer Intern, Nokia, *Ottawa, ON*   May 2025 - Aug 2025
- Owned end-to-end feature validation for two security features on SAR 7705 routers: built test plans, presented reviews, implemented Tcl test procedures, executed regressions, and verified results independently
- Developed **90+** automated sub-tests for TACACS+ access permission and Statistics features, covering multi-protocol access (Telnet, SSH, FTP, Console, SNMP) and TACACS+/RADIUS user VSA, login, authorization, and accounting statistics, improving coverage and closing gaps in legacy suites
- Improved productivity and test scalability by scripting Python automation to register tests across **150+** suites and group runs under compatible testbeds for efficient regression execution

5G Baseband Embedded Software Developer Intern, Ericsson, *Ottawa, ON*   May 2024 - Dec 2024
- Developed features for sub-argument-driven configuration selection and automated YAML test case generation for a Python tool
- Ported and customized a legacy test framework to ensure compatibility, seamless integration, and successful compilation within the new codebase
- Participated in Agile development including stand-ups, code reviews, and software lifecycle, ensuring consistent delivery of high-quality software

Test Automation Software Developer Intern, Nokia, *Ottawa, ON*   Jan 2024 - Apr 2024
- Migrated and redeveloped 13 full-stack test suites for a React web app, ensuring compatibility with the new framework using JavaScript, Node.js, MochaJS, and REST APIs
- Verified successful implementation of proposed bug fixes through thorough manual testing across multiple scenarios and environments

Test Automation Software Developer Intern, Nokia, *Ottawa, ON*   May 2023 - Sept 2023
- Developed and enhanced front-end and back-end test frameworks for Nokia NSP web app using JavaScript, Node.js, MochaJS, and REST APIs to improve reliability and efficiency
- Enhanced product quality and stability by resolving **10+** defects identified in regression tests using debugging techniques and core web principles

PROJECTS

Operating System Scheduler — C, pthreads
- Developed a simplified OS scheduler emulating Linux Completely Fair Scheduler and a Producer/Consumer model for concurrent process management
- Minimized priority queue sort time using an optimized Insertion Sort for nearly sorted queues
- Designed thread synchronization protocols with mutexes to prevent conflicts and deadlocks

Task Management Discord Bot — JavaScript, Node.js, Notion & Discord API
- Developed a Discord bot to track tasks from Notion and display them in Discord, helping a peer improve GPA by **20%**
- Ensured responsiveness under multiple user and API requests using asynchronous programming (async/await)

SKILLS

Languages	Python, JavaScript, C/C++, PHP, Java, HTML, CSS, SQL, Assembly, YAML, TCL, Verilog
Tools/Frameworks	Node.js, MochaJS, React.js, Git, Regex, Selenium, OpenStack, Bootstrap, Linux, Jenkins
Embedded/Hardware	ARM microcontrollers, FPGA, Embedded Linux, UDP, TCP/IP
Soft Skills	Agile, Communication, Time management, Teamwork, Leadership, English, French, Tamil