

Qualifications, Languages, Skills, and Technologies

- **Languages:** Python, Java, C, C++, ARM Assembly, Verilog, BASH, HTML, CSS, JS
- **Software:** Git, Azure ALM, Jira, Confluence, L^AT_EX, GitHub Actions, Jenkins, CI/CD, Testing frameworks
- **Linux:** Debian/Ubuntu, Arch, RHEL/Fedora, Raspberry Pi, WSL

Employment

Software Developer Student, Co-op	Solace Corporation	Winter 2024, Fall 2024, Summer 2025
	<ul style="list-style-type: none">• Engaged in the development cycle through planning, implementing, and testing features in the Solace Python, C, and Java-based APIs• Optimized the migration of SVN repositories to Git from a multiple-week process to a one-day process, with full documentation• Organized and led the migration of repositories to open source the Wireshark SMF Plugin• Identified, investigated, and fixed bugs within the Python, C, and Java APIs, resolving customer issues and improving the quality of the products• Winning team of an internal hackathon	
Full-Stack Developer Co-op	LearnExperts	Summer 2024
	<ul style="list-style-type: none">• Leveraged GitHub Actions to automate testing workflows that generate reports, increasing visibility of bugs• Implemented AWS RUM with custom metadata for error logs to improve the debugging process• Wrote complex end-to-end tests for interactive elements using Cypress, reducing manual test requirements	

Other Relevant Work Experience

- **Jr. Test Analyst, Co-op, Immigration, Refugees, and Citizenship Canada** (Summer 2023)
- **Jr. Software Developer, High School Co-op, NorthStar Utilities** (Winter 2020)

Education

Ottawa, ON	Carleton University	Fall 2021 - Spring 2026
<ul style="list-style-type: none">• B.Eng in Computer Systems Engineering, Co-op• 4th Year Standing, expected to graduate in May 2026• Coursework: Computer Architecture, Networking, Network Security, Programming Practices, Electronics, Systems Design		

Projects

University-Related

- **Team Leader, SYSC 4907: Capstone.** In-development project using AI agents to answer data-driven questions. ADK, Azure
- **SYSC 4805: Computer Systems Design Lab.** In-development project using Arduino hardware to create an autonomous snow plow. C++, Project Management
- **Team Leader, SYSC 3010: Computer Systems Development Project.** Developed a cat monitoring system using Raspberry Pi hardware. Python, RPi, Solace JS API, Solace Python API
- **Team Leader, ECOR 1041: Data Management.** Python command-line interface that analyzes and organizes a dataset of books

Personal Projects

- **Wallpaper Theme Converter.** Processes images to fit a colour scheme. Used by thousands, 100+ stars on GitHub. HTML, CSS, JS
- **AI Raspberry Pi Bamboo Plant.** Uses a water sensor and a local LLaMA instance writing a speech about neglecting to water a plant.
- **Albums Database.** Website that uses Spotify API and JSON to parse data of albums with search filters. HTML, CSS, JS, Python

More projects can be found at <https://notneelpatel.xyz/portfolio>.

Additional Experience and Awards

- **Hack The Hill II, Ross FPGA Challenge 1st Place:** Used Verilog + Python to program a ROM that plays videos in a custom FPGA
- **Solace Hackathon Spring 2024, People's Choice:** Created a chatbot to answer questions about Solace documentation
- **Discover Technata Hacks 2023, Top 3:** Pitched a data-driven business plan for more sustainable data centres using IoT, 5G, and AI
- **Deans' Honour List (2022, 2025):** Maintained a GPA of A for the year
- **Lord Strathcona Medal (2021):** Highest award that can be bestowed upon a Cadet

Extracurricular Activities

- **Development Team (2022):** Assembled a team of classmates to learn and gain experience in web development. React, Firebase
- **Royal Canadian Army Cadets (2015 - 2021):** Demonstrated leadership, disciplinary and organizational skills through the vital positions of Drill Sergeant Major, Drum Major, and Instructor.