Ottawa, ON
neelpatel4@cmail.carleton.ca

Neel Patel

https://github.com/notneelpatel
https://notneelpatel.xyz/portfolio

Qualifications, Languages, Skills, and Technologies

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

Employment

Software Developer Student, Co-op　　　　**Solace Corporation**　　　　**Winter 2024, Fall 2024, Summer 2025**

- 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**

- 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**

- 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.