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
- **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 Solace PubSub+ Python, C API, and Java-based APIs.
- Optimized migrating repositories from SVN to Git from a multiple-week process to a one-day process
- 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
- Coursework: Capstone, Computer Architecture, Networking, Human Computer Interaction, AI in Engineering, Advanced C++

Projects

- **AI Raspberry Pi Bamboo Plant**. Uses a water sensor and a local LLaMA instance writing a speech about neglecting to water a plant. Python, Linux
- **Wallpaper Theme Converter**. Processes images to fit a colour scheme. Used by thousands, **100+ stars on GitHub**. HTML, CSS, JS
- **Albums Database**. Website that uses Spotify API and JSON to parse data of albums with search filters. HTML, CSS, JS, Python
- **AI Agent, Capstone**. In-development project using AI agents to answer data-driven questions. ADK, Llama, Python, sysadmin
- **Autonomous Snow Plow, SYSC 4805: Computer Systems Design Lab**. In-development project using Arduino hardware to create a mini snow plow. C++, Proect Management
- **Team Leader, SYSC 3010: Computer Systems Development Project**. Developed a cat monitoring system using Raspberry Pi hardware. Python, RPi, PubSub Messaging, system management
- **Team Leader, ECOR 1041: Data Management**. Python command-line interface that analyzes and organizes a dataset of books. Python, CSV

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.
- **Discover Technata Hacks 2023, Top 3:** Created 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.