Patrick Igiraneza

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https://www.linkedin.com/in/patrick31
GitHub: https://github.com/vian21
Portfolio: https://vian21.github.io

PROFESSIONAL EXPERIENCE

Software Developer (CO-OP)   May 2023 – Aug 2023
University of Ottawa

- Assisted two PhD students in data collection and dataset preparation for their machine learning research
- Demonstrated excellent time management abilities, and effectively balanced multiple tasks and priorities
- Exhibited strong organizational skills and attention to detail, ensuring data quality and integrity
- Collaborated efficiently with the research team, contributing to the achievement of project milestones and objectives

SKILLS

- **Programming languages**: Python, Bash, C++, Java, JavaScript, Node.js, Typescript, PHP, Rust, Make
- **Developer Tool**s: Linux, Git, Docker, GitHub Actions, Netlify, Google Cloud, Vercel, PlanetScale, **Vim**
- **Network**: OSI model, TCP/IP, DNS, NTP, SSH
- **Databases:** MySQL, PostgreSQL, SQLite
- **Testing tools:** Vitest, Jest, unittest
- **CyberSecurity:** Kali Linux, Metasploit, Binary and Web Application **Reverse engineering**
- **Languages: English** (Advanced) & **French** (Professional Proficiency)

EDUCATION

Bachelor of Applied Science, Software Engineering (CO-OP)   September 2022 – December 2026
University of Ottawa (Ottawa, Ontario)

- **GPA**: 9.33/10
- Awarded merit scholarships of $1,000 for academic excellence. Dean's list 2 Semesters
- Available for 4–8 **months** Co-Op internship (January 2024)

PROJECTS

- **Thermocouple ADC Driver (Rust & C++):** Wrote a **microcontroller** driver that uses a binary search algorithm to convert voltage readings into temperature using a lookup table. Improved software maintainability by documenting and effectively communicating my progress to the team
- **Social Media App (MySQL, Express.js, React, Tailwind CSS & JWT)**: Created a social media application to reconnect high school friends. Included features like WhatsApp-like stories, an Instagram-like feed, and real-time messaging using **WebSocket**s. Used **JWT** for user **authentication** and **authorization** through a **RESTful** API
- **School Management System (MySQL, PHP, PHPMailer & jQuery)**: Created a PHP SMS to streamline administrative tasks, generate reports, class lists, and account statements using **TCPDF**. Developed a secure authentication system with account activation and password reset using **UUID**s and PHPMailer for email notifications
- **Weight Tracker PWA (Chart.js, Service Workers, caching & localStorage)**: a Progressive Web App (PWA) that can be installed like a native app and works offline. Used a **service worker** to cache essential resources (HTML, CSS & JS) and ensure seamless performance and speed, even in poor network conditions

EXTRA-CURRICULAR

- **Hack The Hill:** Proud member of the development team. Volunteered as a web development **mentor** in the **Wicked Web Work** (January 2023)**.** Participated in the 2023 Hackathon and made a color detection app – ColorSpy with a mobile front end in **unity** and back end in **Python**, incorporating **RSA** encryption
- **uORocketry club:** member of the avionics software team and learning Rust for embedded devices
- **OWASP Ottawa member**: Attends InfoSec talks and cybersecurity training sessions
- **Music** (Gospel, Jazz, R&B): Plays the acoustic, electric, and bass guitar, as well as some piano and plays in a band every week