Patrick Huynh

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EDUCATION

University of British Columbia   2024 – 2029
Bachelor of Applied Sciences, Civil Engineering   *Vancouver, BC*
- Awarded Schulich Leader Scholarship valued at **$120,000**

TECHNICAL SKILLS

Languages: Python, C/C++, Java, JavaScript, Bash, PHP, HTML/CSS, SQL, MATLAB, PowerShell
Developer Tools: SOLIDWORKS, Fusion 360, Altium Designer, Git, Docker, Microsoft Azure, VS Code, PyCharm
Technologies & Frameworks: Active Directory, Microsoft Entra, REST APIs, Node.js, Flask, React, .NET Core

EXPERIENCE

Ground Station Hardware Developer   September 2024 – Present
UBC Orbit   *Vancouver, BC*
- Designed and simulated a high-performance Power Amplifier (PA) and Low Noise Amplifier (LNA) switch for satellite communication subsystems.
- Conducted RF circuit analysis to optimize impedance matching, minimize insertion loss, and improve isolation between transmit and receive paths.

Service Desk Analyst   August 2022 – Present
AgeCare   *Calgary, AB*
- Resolved **Tier 1 & 2** support tickets across enterprise systems, improving response efficiency and contributing to a **measurable reduction in backlog**.
- Led organization-wide phishing simulation campaigns as part of cybersecurity training, increasing employee awareness and reducing click-through rates.
- Managed a migration of **over 5,000** user accounts from Chartwell Ontario to AgeCare, facilitating a seamless transition following the acquisition of **20+** long-term care establishments across Ontario.
- Completed a Hosted Exchange to Microsoft 365 rollover, overseeing **over 4,000** user mailboxes.

Health Gateway Advisory Board Member   September 2023 – May 2025
Government of British Columbia   *Vancouver, BC*
- Selected as **1 of 13** patient advisory board members for the Health Gateway project by the Ministry of Health, reporting to the Health IT Strategy Branch.
- Assisted with the deployment of the imaging reports function so that patients can view reports for **X-rays, MRIs, and ultrasounds**.
- Participated with healthcare providers, administrators, and policy makers to enhance the quality and effectiveness of Health Gateway for patients.

PROJECTS

ePaper Transit Board   April 2025 – Present
- Engineered a transit departure board that **displays real-time information** and shows the best route to take according to the next event from Google Calendar. Using a **Raspberry Pi Zero 2 W** and **7.5" Waveshare e-ink display**.
- Developed a **local Flask REST API** to serve information parsed from **Translink's GTFS feed**.
- Optimized UI rendering with PIL and partial refreshes for **minimal power draw** and visual latency.

AI-Powered IoT Parking Meter | ⎘ Project Site   September 2022 – April 2023
- Worked to create an AI-Powered Parking Meter with the goal to **eliminate harmful emissions** caused by routine maintenance and vandalism. **Awarded bronze** at the Greater Vancouver Regional Science Fair.
- Conducted **45 trials** to test different scenarios such as the meter's ability to recognize and authenticate vehicles yielding a **95.6% accuracy rate**.

Cam Tag: A Portable Safety Device | 📊 Slide Deck   July 2022
- **Pioneered and prototyped** a backpack-mounted camera designed to identify and alert users of threats using AI.
- Assisted with the training of an ML model with **over 10,000** data points using **TensorFlow** to detect weapons.
- Pitched a fully functional prototype at Toronto Metropolitan University, **placing 1st** in a design competition.