

# Darnell Foster

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## EDUCATION

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### Carleton University

Bachelor of Computer Science (Cybersecurity Stream) | CGPA: 10.12/12(A-)

Ottawa, ON

Sept. 2021 – April. 2026

## EXPERIENCE

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### Junior Developer | *Drupal, PHP, SQL, Docker, OpenShift, YAML, Git, JavaScript, Bash*

Jan. 2025 – Present

Government of Canada ISED

Ottawa, ON

- Led development for a mapping system in Drupal using PHP, YAML, SQL, JavaScript, and API calls.
- Automated data migrations through an ETL processes using PHP and YAML to move content from a csv to Drupal as stylized map points. Significantly reducing manual data entry for 4,100+ entries and improving product scalability.
- Managed containerized Linux environments with Docker, WSL and bash scripts for automation.
- Gained familiarity with OpenShift and Bitbucket when adjusting pod configurations created from CI/CD pipelines.

### Student Project Assistant | *MS Powerapps, MS suite*

May. 2024 – Dec. 2024

Government of Canada PSPC

Ottawa, ON

- Contributed to development of department-wide supplemental cybersecurity learning tool, helping with both feature development and UI/UX through wireframe reviews and user testing.
- Achieved 24,000+ lifetime user and 2,000+ active user, improving engagement and cybersecurity metrics with 1,000k text submissions.
- Researched and compiled a comprehensive patch management guide outlining best practices for mitigating and resolving infrastructure and application vulnerabilities.

## PROJECTS

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### Procedural Snowflake Generator | *C++, openFrameworks, Computer Graphics*

Dec. 2025

- Implemented a procedural snowflake growth simulation based on Reiter's cellular model for snow crystal formation.
- Designed object-oriented components to model crystal growth using a grid-based system that simulates diffusion and crystal attachment rules.
- Built a GUI to simulate snowflake growth under different conditions and simulation speeds.

### Elevator System Simulator | *C++, QT Creator, Multithreading*

Mar. 2024

- Developed an elevator simulation using multi-threading, C++, and Qt Creator, modeling realistic scenarios with multiple floors, elevators, and passengers all managed through a GUI.
- Designed a central control unit to assign elevators to calls based on direction, queued floors, and other elevator positions, optimizing passenger flow. Implemented safety protocols for weight limits, fires, blocked doors, and power outages.
- Used OOP design patterns, use cases, sequence diagrams, and class diagrams for clear and efficient system design prior to implementation.

### Health & Fitness Club Management System | *Node.js, Express.js, PostgreSQL, HTML/CSS, JavaScript*

Nov. 2023

- Collaborated in a team to design and implement a full-stack web app for managing a health and fitness club.
- Developed a RESTful backend using Node.js and Express, integrated with a PostgreSQL database and secure password practices by using bcrypt for hashing.
- Designed and refined the database schema using normalization and other core data modeling principles.

## CERTIFICATIONS

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Google IT Automation With Python Issued by Coursera

June 2023

## TECHNICAL TOOLS

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**Languages:** Python, Java, C/C++, JavaScript, PHP, SQL, Bash, Haskell, HTML/CSS, YAML, Swift

**Tools:** Git, MS Suite, Drupal, Godot, Putty, QT Creator, Docker, Node.js, VirtualBox VM, OpenShift

**Soft Skills:** Conflict resolution, time management, adaptability, detail orientation, remote work