

# Grant Achuzia

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## EDUCATION

### Carleton University

Bachelor of Engineering in Computer Systems Engineering

September 2021 – May 2026

Ottawa, ON

## PROFESSIONAL EXPERIENCE

### Lumentum

January 2025 – August 2025

Ottawa, ON

#### System Software Solution Test Intern | Design Verification & Test Intern

- Automated regression testing with TypeScript, Selenium, and GitHub Actions, reducing test time from hours to under 30 minutes per release.
- Wrote Bash scripts using SSH and gNOI/gNOIC protocols to automatically upgrade firmware and verify network connectivity on multiple devices.
- Created a Python CLI tool that generates PDF and PowerPoint test reports, highlighting failed tests to help engineers debug issues faster.

### Maintenance Drone Co.

May 2024 – December 2024

Ottawa, ON

#### Software Developer Intern

- Built a Python tool using Shapely and Matplotlib that converts KML/XML map files into drone waypoint flight paths for inspection missions.
- Reduced point-cloud processing time by implementing NumPy grid downsampling and noise filters, keeping enough detail for accurate 3D model annotation in Blender.

### Roof Maintenance Solutions

May 2022 – December 2023

Ottawa, ON

#### Software Developer Intern

- Wrote Python scripts to import and export roof inspection annotation data between different formats, making report generation faster.
- Used regex patterns to automatically find and fix errors in survey XML files, preventing incorrect reports that would require re-inspections.

## PROJECTS

### CU-Bytes

Engineering Capstone | PyTorch, Flask, React Native/Expo, SQLite

- Trained a PyTorch food classification model using ResNet50 that identifies 100+ food items from photos for campus dining tracking.
- Built data preprocessing scripts, model training workflow with TensorBoard logging, and Flask API endpoints that serve predictions to a React Native mobile app.

### Cell Reminders

Google Sheets Add-on | Apps Script, JavaScript, HTML/CSS, Google Calendar/Sheets APIs

- Created a Google Sheets add-on that syncs events and tasks between selected cells and Google Calendar, allowing users to create calendar entries directly from spreadsheet data.
- Implemented a sidebar interface with separate tabs for events and tasks, cell selection detection, form validation, and automatic updates when cells change.

### Fire Alarm Notification System (FANS)

Engineering Project | Python, Flask, JavaScript, Firebase, Raspberry Pi

- Built a web dashboard that displays fire alarm status updates in real-time and allows operators to configure alarm settings remotely.
- Connected Raspberry Pi Pico sensors to LEDs and buzzer hardware, and synchronized alarm events with Firebase so the dashboard updates immediately when alarms trigger.

## ACTIVITIES

Licensed Drone Pilot — Transport Canada Small RPAS Advanced Operations certified (PC2214005330).

2024 Canadian Engineering Competition — National Programming Category (Bronze Medalist) in Calgary, AB.

## TECHNICAL SKILLS

**Languages:** Python, C, C++, C#, JavaScript, TypeScript, Java, SQL, Bash, PowerShell

**Frameworks & Tools:** PyTorch, Flask, React, React Native, Docker, Git, GitHub Actions, Firebase, Linux, Jira, Apps Script

**Concepts:** Machine Learning, Data Structures & Algorithms, Systems/Networking, CI/CD, DevOps, Agile/Scrum, Test Automation