

# Grant Achuzia

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## EDUCATION

**Carleton University** Expected May 2026  
*Bachelor of Engineering in Computer Systems Engineering* Ottawa, Ontario

## EXPERIENCE

**Lumentum** Jan 2025 – Aug 2025  
*System Software Solution Test Intern | Design Verification & Test Intern* Ottawa, Ontario

- Launched end-to-end test automation & CI/CD pipelines using GitHub Actions, Node.js, SeleniumWebDriver & the Tauri driver to deploy and validate sensor software installs/releases.
- Designed Bash-based scripts with ssh, gnoic, and core Unix utilities to automate connectivity checks, firmware upgrades, and software regression testing.
- Authored a modular Python CLI report generation tool that automatically produces professional testing reports in PDF, PPTX, and DOCX formats.

**Maintenance Drone Co.** May 2024 – Dec 2024  
*Software Developer Intern* Ottawa, Ontario

- Earned TransportCanada Small RPAS Advanced Operations Certificate & piloted drones to capture high-resolution roof-survey imagery and telemetry for training datasets.
- Engineered a Python flight-planning suite with Shapely & Matplotlib to parse KML/XML geospatial data into optimized drone waypoints, cutting manual setup times.
- Implemented a NumPy-based grid downsampling & noise-filtering algorithm, sanitizing point-clouds while preserving critical geometry for Blender-based AI annotation.

**Roof Maintenance Solutions** May 2022 – Dec 2023  
*Software Developer Intern* Ottawa, Ontario

- Created a Python class to streamline annotation data imports/exports in a custom report generator.
- Implemented regex-powered validation routines to detect and auto-correct XML survey annotation errors, boosting report reliability.

## PROJECTS

**Kortleck**  
*Your Favorite Card Games All In One Place | JavaScript*  
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**Twit**  
*Simple Version Control System | C++*  
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**TRPL-M**  
*Practice Mental Math In The Terminal/Browser | Python*  
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## ACTIVITIES

**Canadian Engineering Competition (National Programming Category)** Mar 2024  
*Bronze Medalists* Calgary, Alberta

- Optimized routing on a CSV-driven 100×100 grid using an A\* Python algorithm with environmental-cost heuristics.
- Developed a responsive web UI in HTML, CSS and JavaScript for visualizing extraction paths.

## TECHNICAL SKILLS

**Languages:** Python, JavaScript, TypeScript, C, C++, SQL, Bash, PowerShell  
**Technologies:** Git, Jira, React, Docker, Flask, Figma, Linux, LaTeX, GitHub Actions  
**Concepts:** Data Structures and Algorithms, DevOps, CI/CD, Computer Architecture, Computer Networking, Agile, Scrum