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 and Test Intern   *Ottawa, Ontario*
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Maintenance Drone Co.   May 2024 − Dec 2024
Software Developer Intern   *Ottawa, Ontario*
- Engineered a Python flight-planning suite with Shapely and Matplotlib to parse KML/XML geospatial data into optimized drone waypoints, cutting manual setup times.
- Automated dynamic route optimization—tuning bearing, altitude, and inter-waypoint spacing—for enhanced flight efficiency and battery life.
- Implemented a NumPy-driven grid downsampling and 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*
- Architected a modular Python class to streamline annotation data import/export in a custom report generator.
- Implemented regex-powered validation routines to detect and auto-correct XML survey annotation errors, boosting report reliability.
- Designed a folder management system that cut user verification times and standardized annotation workflow.

PROJECTS

TRPL-M | *Python*
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Kortlek | *JavaScript*
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Unidentified Third Project |
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ACTIVITIES

Canadian Engineering Competition (National Programming Category) 2024 | *Python, JavaScript, HTML/CSS*   Mar 2024
Bronze Medalists

- Optimized drill-rig routing on a CSV-driven 100×100 grid using an A* 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, React, React Native, Docker, Flask, Figma, Linux, LaTeX, GitHub Actions
Concepts: Data Structures and Algorithms, Operating Systems, Computer Architecture, Agile Methodology, Computer Networking