

Karan Gupta

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EDUCATION

University of Waterloo <i>Bachelor of Applied Science in Computer Engineering</i>	Sep. 2025 – Present GPA: 90
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EXPERIENCE

Software Engineering Intern <i>Manulife Financial Corporation</i>	January 2026 – Present Waterloo, ON
<ul style="list-style-type: none">Developing automated test suites in Copado to improve Salesforce reliability by increasing organizational test coverage toward an 87% targetMigrating legacy Salesforce workflows to Flow based processes to reduce technical debt and support updatesSupporting GenAI driven initiatives to improve internal automation and decision making across sales teamImplementing new Salesforce features by translating business needs into backend logic and platform capabilities	Sep. 2025 – Present Waterloo, ON
Autonomy Software Developer <i>Waterloo Aerial Robotics Group</i>	Sep. 2025 – Present Waterloo, ON
<ul style="list-style-type: none">Implemented computer vision algorithms using OpenCV2 for real-time signal detection, improving recognition accuracy through iterative parameter tuning and validation.Built multi-process telemetry and command systems in Python (PyMAVLink) to simulate UAV communication, enhancing reliability and throughput across distributed processes.	Sep. 2025 – Present Waterloo, ON
Computer Support Specialist <i>C2C Development Holdings INC</i>	May 2022 – Sep. 2025 Kitchener, ON
<ul style="list-style-type: none">Engineered a Python-based automation bot that auto-responded to Facebook Marketplace messages, improving response time by over 70% and automating 700+ customer interactions.Provided technical support in database management, hardware setup, and network troubleshooting.	May 2022 – Sep. 2025 Kitchener, ON
Founder & Operator <i>Custom Gaming Keyboards</i>	Sep. 2022 – Present Cambridge, ON
<ul style="list-style-type: none">Designed and sold 35+ custom keyboards, generating \$5,500+ in revenue, while building and maintaining an e-commerce platform for orders, client communication, and margin optimization	Sep. 2022 – Present Cambridge, ON

PROJECTS

DeliriumWatch <i>Raspberry Pi, Arduino, Python, OpenCV, HTML, CSS, Flask, C/C++</i>	Sep. 2025 – Nov. 2025
<ul style="list-style-type: none">Built a real time Python monitoring pipeline with secure login for Grand River Hospital staff and role based access control, resulting in over 90% reduction in manual environmental monitoring during simulated testing.Implemented OpenCV based eye detection and live Flask powered web visualization with automatic alert flagging, resulting in automated sleep and blink classification and faster abnormal condition response during validation.Engineered serial data ingestion and threshold validation, resulting in stable multi sensor tracking with 0 dropped readings.	Sep. 2025 – Nov. 2025
AI Admissions Similarity Tool <i>Python, PRAW, MongoDB</i>	June 2025 – Present
<ul style="list-style-type: none">Built an AI-driven tool to scrape admissions data and compute similarity scores across GPA, tests, and interestsCreated applicant benchmarking with reach, target, and safety school classification	June 2025 – Present
Sillouette <i>Python, PRAW, MongoDB</i>	June 2025 – Present
<ul style="list-style-type: none">Built an Sillouette to scrape admissions data and compute similarity scores across GPA, tests, and interestsCreated applicant benchmarking with reach, target, and safety school classification	June 2025 – Present

TECHNICAL SKILLS

Languages: Python, C, C++, Java, SQL, Apex, HTML, CSS

Frameworks & Libraries: Flask, FastAPI, REST API, OpenCV2, Raylib, PyMavLink, NumPy, PRAW, Arduino, Node.js

Developer Tools: Visual Studio, Git, VS Code, GitHub, Salesforce, Postman, Bruno, Docker

Awards: First Place, Amazon Robotics Hackathon; Governor General's Academic Award; Bronze Medal, Chess AI Bot Tournament