GURNEET KAUR

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Professional Summary

- Honours Applied Computer Science student with hands-on experience in programming, data analysis, IT support, and applied machine learning concepts. Skilled in debugging, system troubleshooting, and implementing technical solutions across Python, Java, SQL, JavaScript, and Linux-based environments.

- Experienced in working with real-time sensor systems using Raspberry Pi 5, Python, and hardware modules, where responsibilities included writing data-processing scripts, validating outputs, documenting workflows, and conducting small-scale experiments for research purposes. Developed strong analytical and critical-thinking abilities through interpreting sensor data and contributing to research paper writing and revision.

- Over a year of experience as a Teaching Assistant for Data Structures & Algorithms, supporting 200+ students in debugging logic errors, understanding algorithm behaviour, and applying object-oriented programming concepts.

- Developed projects demonstrating clean code design, ETL workflows, SLA computation, JavaScript dashboard development, and relational data modeling, including a compact Northwind SLA analytics system and a community flight-status tracker for Northern Manitoba.

- Skilled in Python, Java, SQL, JavaScript, PostgreSQL, Linux, Git, and Power BI, with growing experience in cloud fundamentals and cybersecurity as part of the Google Cybersecurity Certificate program.

- Committed to accuracy, clarity, and problem-solving with strong communication, teamwork, leadership experience, and the ability to manage multiple responsibilities in dynamic environments.

- B.Sc. Honours Applied Computer Science student minoring in Mathematics (graduating Dec 2026), Dean's Honour List, Academic Proficiency Scholarship recipient, with strong foundations in algorithms, operating systems, data security, and applied analytics.

Relevant Work Experience

Undergraduate Research Assistant   September 2025- Present
The University of Winnipeg   Winnipeg, Manitoba

- Developed Python scripts to collect, clean, and analyze real-time sensor data using Raspberry Pi 5, improving data signal reliability for experimental and analytical use.

- Broke down complex technical tasks into smaller testable components, designed controlled tests, and evaluated multiple implementations approaches to strengthen accuracy and reproducibility.

- Documented workflows, procedures, and test results to support research continuity and team collaboration.

- Contributed to a faculty-supervised research paper by supporting data handling, writing analytical sections, and applying critical-thinking skills—while adhering to confidentiality restrictions and not disclosing project-specific details.

Teaching Assistant (Data Structures & Algorithms)   September 2024- Present
The University of Winnipeg   Winnipeg, Manitoba

- Assist 200+ students by guiding them through debugging Java programs, identifying logic errors, and understanding algorithmic behavior through step-by-step reasoning.
- Teach modular program design, naming conventions, algorithm complexity analysis, and writing strong test cases to prevent common logic failures.
- Support grading, provide written feedback, invigilate exams, and respond to technical questions throughout the term, ensuring student comprehension and academic integrity.

Additional Work Experience

Customer Service Agent   October 2024 – Present
Perimeter Aviation   Winnipeg, Manitoba

- Provide customer support in a high-volume environment, managing inquiries, travel assistance, and service issues with professionalism and clarity.
- Demonstrate strong communication, patience, conflict-resolution, and problem-solving skills while assisting diverse passenger groups.
- Maintain accuracy in documentation, follow safety procedures, and collaborate with team members to ensure smooth day-to-day operations.

Projects

Flight-Status Dashboard (Northern Manitoba Community Tracker)
- Built an interactive JavaScript dashboard display live flight information for northern communities, focusing on usability under low-bandwidth conditions.
- Designed clean UI components emphasizing clarity, accessibility, and structured layout.
- Created reusable code modules to improve maintainability, scalability, and readability of the frontend system.

Northwind Pricing & Fulfillment SLA (ETL & Analytics System)
- Designed a compact analytics project implementing SLA metrics (lead time, on-time rate, late-day buckets, No-SLA flags) using a Northwind-style dataset.
- Built star-schema tables and SLA analytic views, enabling clean exports for Power BI, Excel, and CSV-based workflows.
- Wrote ETL SQL, schema creation scripts, and validation queries for automatic Docker-based Postgres setup.

Education

The University of Winnipeg
Bachelor Honours in Applied Computer Science   Sep 2022 – Present
Minor: Mathematics
- Recognized for academic excellence through Deans Honour's list, maintaining a stellar 4.0 CGPA, demonstrating dedication to mastering applied computer science concepts.
- Awarded the Academic Proficiency Scholarship by The University of Winnipeg.

Relevant Courses: Data Structures & Algorithms, Computer Security & Privacy, Operating Systems, Artificial Intelligence, Data Warehousing

Volunteer

Treasurer (ACM Student Chapter)   January 2026– Present
The University of Winnipeg   Winnipeg, Manitoba

Executive Secretary (ACM Student Chapter)   September 2025– December 2025
The University of Winnipeg   Winnipeg, Manitoba

Community Volunteer (Langar Service)   January 2024 – Present
Gurudwara Sahib Winnipeg, Manitoba   Winnipeg, Manitoba

Certificates

Google Cybersecurity Certificate   July 2025
AWS Cloud Technical Essentials   November 2025