Sukhpreet Kaur Sandhu

Calgary, AB

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EDUCATION

University of Calgary   Calgary, AB
Bachelor of Science in Computer Science (Distinction: GPA 3.8)   Sept 2022 – Expected Graduation Apr 2026
3 Dean's Honour Rolls

Langara College
Diploma in Computer Science (Distinction: GPA 4.0)   Vancouver, BC
4 Dean's Honour Rolls   Jan 2018 – Dec 2019

TECHNICAL SKILLS

Languages: Java, Assembly, Python, C++, JavaScript, HTML/CSS, SQL, Haskell, Prolog
Frameworks / Libraries: Junit, Flask, React Native, Node.js, Mongoose (MongoDB), PHP, Bootstrap
Operating Systems: Windows, Linux
Developer Tools: VS Code, Android Studio (Emulator), Eclipse, IntelliJ, PyCharm, MySQL Workbench, Jupyter Notebook, NetworkX, Gephi, Power BI
Version Control: Git
Microsoft Office: Proficient with Microsoft Project, PowerPoint, Word, and Excel, and other MS licensed programs

SOFT SKILLS

Leadership, Effective Communication, Problem Solving, Adaptability, Curiosity and Continuous Learning, Independent and Teamwork, Time Management, Critical Thinking, Attention to Detail, Customer Focus, Initiative

RELEVANT COURSEWORK

- Network Analysis and Data Mining
- Data Structures, Algorithms Design and Analysis
- Database Management
- Human-Computer Interaction
- Computer Networks
- Introduction to Software Engineering
- Principles of Operating Systems
- Functional Programming Paradigms
- Information Security / Privacy Ethics
- Computing Machinery

WORK EXPERIENCE

Pre-Board Screening Officer   **Jan 2022 - Present**
Calgary International Airport   *Calgary, AB*

- Conduct thorough security screenings of 500+ individuals daily using advanced technologies like X-ray and CT X-ray scanners to detect prohibited items and enhance safety.
- Provide clear guidance and excellent customer service to 3,000+ passengers daily, ensuring smooth traffic flow and maintaining a 98% satisfaction rate.
- Collaborate with a team of 10 security officers to optimize protocols, reducing wait times by 20% during peak hours while maintaining safety standards.

Shift Supervisor   **Feb 2020 – Jan 2022**
Monterey Park Subway   *Calgary, AB*

- Oversaw training program for new hires, resulting in a 20% increase in efficiency with 15% less customer complaints.
- Implemented new scheduling that optimized shift coverage, reducing overtime costs by 10% and increasing employee satisfaction by 25%.
- Managed inventory levels to minimize waste and reduce costs by 15%, resulting in an annual savings of $10,000.

PROJECTS

Calgary Transit Network Analysis | *Python, NetworkX, Gephi, Power BI, Pandas, Data Mining*   **Jan 2025 – Apr 2025**

- Modeled Calgary's public transit as a multilayer network (bus, MAX, CTrain) using GTFS data and NetworkX for structural analysis.
- Applied centrality measures and community detection to evaluate network efficiency and transit connectivity.
- Visualized transfer points, bottlenecks, and route overlaps using Gephi and Power BI for actionable insights.
- Refined node/link definitions and research framework based on feedback to meet academic and analytical standards.

Roamio – Travel App | *React Native, Android Studio, UX Design*   **Jan 2025 – Apr 2025**

- Designed a mobile travel app and focused on enhancing user interaction and trip planning for solo and group adventurers.
- Developed cross-platform functionality using React Native and testing on Android Studio emulator.
- Applying HCI principles to optimize user experience, accessibility, and interface responsiveness.
- Collaborating on UI/UX flows, navigation structure, and feedback-driven design iterations.

Self-Checkout System for TheLocalMarketplace | *Java, Git, JUnit, Java Swing*   **Jan 2024 – Apr 2024**

- Developed and implemented control software for a scalable self-checkout system using Java and Java Swing to enhance functionality and user experience.
- Created UML diagrams (structure, sequence, state machine) to represent system architecture and behavior, ensuring accurate implementation.
- Conducted requirement analysis and unit testing with JUnit 4.x to identify issues and validate software performance.

Database Project on Online Grocery Shopping | *SQL, JavaScript, HTML/CSS, Python, Flask*   **Sept 2023 - Dec 2023**

- Developed a Python-Flask web application with structured client-server interaction and dynamic routing.
- Designed SQL scripts for schema creation, data insertion, and queries to maintain data integrity.
- Collaborated using Git for version control and managed frontend assets (HTML/CSS/JS) for a seamless user experience.

Web Application Project on Cat Adoption | *React, JavaScript, Node.js, Mongo DB*   **Sept 2020 - Dec 2020**

- Developed full-stack web application using JavaScript and Node.js with RESTful APIs for backend communication.
- Integrated database functionality and optimized performance using Webpack for efficient resource management.
- Designed responsive, user-friendly interfaces with a focus on modern UI/UX principles.

Interactive Game Development | *JavaScript, HTML5, Canvas API*   **Jan 2018 - Apr 2018**

- Implemented an interactive web-based game using JavaScript, enhancing user engagement through dynamic gameplay.
- Established core game functionality, character control, and level difficulty variance for enhanced player experience.
- Crafted a flexible user interface for consistent gameplay across various devices.

CERTIFICATIONS

Google AI Essentials Certificate	*Google*	**Jun 2024 – Jun 2024**
Cloud Computing	*AWS*	**May 2025 – Present**
Data Analytics Certificate	*Google*	**June 2025 – Present**

EXTRACURRICULAR ACTIVITIES

Member of Women in Computer Science Club | *University of Calgary*   **Jan 2023 – Dec 2024**

- Organized 3 introductory workshops for new members, increasing attendance by 30% and engagement levels by 25%.
- Participated in 4 coding competitions, honing problem-solving skills, with a 15% improvement in time management abilities.

Volunteer Coordinator | *Dashmesh Culture Centre*   **Apr 2020 – Present**

- Organize weekly langar services, serving meals to 500+ attendees while ensuring smooth kitchen.
- Assist in major events of Vaisakhi and Gurpurab, managing logistics and supporting 1,000+ participants during festivities.