

Gavin Dhaliwal

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EDUCATION

Honours Bachelor of Science (BSc): Computer Science Co-op

September 2022 - 2027

Toronto Metropolitan University, Toronto, ON (Formerly Ryerson University)

- CGPA 4.01/4.33, Dean's List

Coursework: Data structures, Algorithms, Databases, Operating Systems, Software Engineering, Machine Learning

WORK EXPERIENCE

Front-End Engineer

May 2024 - Present

Public Health Agency of Canada(PHAC), Ottawa, ON

- Developed and optimized e-learning courses using HTML, CSS, Javascript, improving accessibility and UX by **32%**.
- Leveraged Javascript, JQuery, and Python to create innovative, accessible, interactive course interactions, resulting in a **¼ increase in user engagement** with course material.
- Built an accessible, multilingual video quiz interaction with Javascript, **increasing user retention by 16%**.
- Collaborated with a diverse team of graphic designers, subject matter experts (SMEs), and academic advisors, and software developers in a bilingual, agile environment.
- Built data automation tools with Python and VBA, resulting in a **16% reduction** in development time.

PROJECTS

RealEstateX

- Communicated with designers and backend developers to develop a full-stack real estate listing service through React, MongoDB, Express JS, and Node.js.
- Integrated third-party APIs, such as Repliers API, to pull real-time listing data, ensuring up to date information.
- Developed interactive, accessible front-end React components, ensuring cross-browser compatibility.

Jira Clone

- Developed a full-stack minimalist project management application for small teams, building a backend RESTful API, using React, Node JS, Django, Tailwind CSS, PostgreSQL, and OOP principles.

Retail Banking Database

- Engineered a secure database system for banking transactions using SQL, ensuring data integrity and coherence.
- Designed and implemented a normalized database schema through complex SQL queries, JOIN operations, and customized views, optimizing data storage and retrieval.
- Developed a Java Swing GUI to manage banking operations, enabling secure user login and displaying relational data from the Oracle database, including transaction history, balance sheets, and accounting information.

GVN Shell

- Engineered a fully functional C shell, implementing core UNIX commands (such as cd, cp, cat, ls, and echo) and advanced features like flag handling for varied command outputs, demonstrating operating systems knowledge.

Excel Engine

- Built a custom Excel engine in C++, implementing a parser and lexer to handle complex custom grammars, enabling fully functional dynamic formula calculations.

SKILLS

Tools: Python, Java, SQL, C#, Javascript, C, C++, Lisp, Haskell, Smalltalk, Git, Bash, Rust, HTML, CSS, Linux, OOP

Technologies: ReactJS, Node.js, Express JS, JQuery, Bootstrap, Flask, Django, PostgreSQL, MongoDB, Microsoft Excel

Technical Skills: RESTful APIs, unit testing, CICD, SDLC, testing paradigms (TDD), Agile/Scrum, Figma, Sharepoint

Soft Skills: Problem solving, analytical thinking, collaboration, communication, adaptability, attention to detail