

Daniel Todd

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Summary

Third-year Computer Science student at Simon Fraser University with a longstanding passion for technology and programming. Known for my ability to rapidly assimilate new programming languages and concepts, I have a strong foundation in both theoretical and practical aspects of computer science. My enthusiasm for innovation and problem-solving has driven my academic and personal projects, and I am now eager to extend this passion into a practical co-op role in software development. Committed to continuous learning, I am ready to make a meaningful contribution to a dynamic and innovative development team.

Skills

Languages & Frameworks: C, C++, Python, Java, JavaScript, SQL, HTML, CSS, Angular, MATLAB, X86-64

Tools & Technologies: Unix, Git, WebSocket, P-Threads, System Calls

Concepts: Object Oriented Design, Operating System Design, Relational Database Design, Advanced Math Skills, Quantum Computing, Agile, Scrum, Advanced Data Structures, Multi-Threading

Education

COMPUTING SCIENCE | SIMON FRASER UNIVERSITY

- Major: Bachelor of Applied Science – BASc, Computing Science.

Projects

WORDLE ULTIMATE (HTML, CSS, JAVASCRIPT)

- A recreation of the original Wordle game with additional features.
- Includes advanced character placement, a practice mode, statistic tracking and automatic daily word selection.
- Showcases in-depth web development with extensive debugging and iterative version control.
- The game can be found at <https://dgtutv.github.io/Wordle/>

S-TALK (C, UNIX, UDP, IPC, DATAGRAM SOCKETS, P-THREADS)

- This C program is a chat-like facility that enables cross-internet communication (requires port forwarding). Made in collaboration with Luukas Suomi.
- Features UNIX UDP IPC with datagram sockets, multiprogramming with p-threads, and simple terminal usability.
- Can be found at <https://github.com/dgtutv/CMPT-300/tree/main/Assignment%202>

RACCOON GAME (JAVA, MAVEN AUTOMATED TESTING, MULTI-THREADING, OOP, AGILE)

- In this 2D tile-based game, you play as a raccoon attempting to steal garbage without being captured or tricked into a trap. Collect enough garbage within enough time and the exit will open, allowing for your ultimate escape.
- Features low-latency due to advanced multi-threading and efficiently designed data structures.
- Features advanced enemy pathfinding borrowing algorithms and techniques from graph theory.
- Made in collaboration with rwa116.
- Can be ran with a .jar file at <https://github.com/dgtutv/RaccoonGame>

UNIX-LS (C, SYSTEM CALLS, UNIX, OOP)

- This project is the recreation of the ls command for UNIX filesystems.
- Includes styling to match Ubuntu text highlighting.
- Written in C, takes advantage of system calls and object-oriented design.
- Can be found at <https://github.com/dgtutv/CMPT-300/tree/main/Assignment%204>

PROCESS EMULATOR (C, SYSTEM CALLS, INTER-PROCESS COMMUNICATION)

- This program emulates a low-level kernel that features IPC.
- Emulates many processes, taking advantage of Round Robin priority queuing.
- Can be found at <https://github.com/dgtutv/CMPT-300/tree/main/Assignment%203>

GRAPHING PROGRAM ADAPTER (C++, POSTSCRIPT)

- This project is an API that mimics a subset of PostScript, allowing user-drawn images to be displayed to the screen.
- Can be found at <https://github.com/dgtutv/CMPT225/tree/master/Assignment%202>

AIRLINE DATABASE (SQL, FOREIGN KEYS, TRIGGERS, STORED PROCEDURES)

- This is an advanced database created in Microsoft SQL Server that represents a fictional airline database.
- Was created entirely via queries and includes foreign key constraints, triggers, stored procedures, and other constraints.
- Unfortunately, it is kept on SFU servers privately, but I can provide the text-formatted database upon request.

THE NIGHT CRUSADE TITANS (ANGULAR)

- Here, I used the Angular framework to create a crime reporting web-app targeted towards the lower mainland.
- Takes advantage of components, services, custom events, API calls, storage servers, routing, shared classes and more.
- This website can be found at <https://dgtutv.github.io/NightCrusadeTitans/>

More projects are available on my LinkedIn page.

Additional Experience

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- Transferable skills: Independence, Customer service, Perfectionism, Ability to work under pressure.