

THARJIHA SUTHEKARA

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SKILLS SUMMARY

- **Python (Advanced):** Built a school database and integrated APIs in *WellGlobe* backend with FastAPI.
- **Java (Proficient):** Developed *Balloon Defense* tower-defense game and a librarian management system.
- **C (Proficient):** Recreated Unix piping with forks/pipes and built a Battleship game with sockets.
- **Swift/Xcode (Intermediate):** Created *StudyFlow* iOS app with quiz feature; prototyped UI in Figma.
- **React/TypeScript:** Developed *WellGlobe* frontend with interactive UI, maps, and animations.
- **SQL:** Designed relational schemas, implemented queries, and managed library + school databases.
- **Leadership & Organization:** Led a 60+ person committee, streamlined workflows, and delivered large-scale school publications.
- **Team Collaboration:** Used Git (branching, pull requests, reviews), Notion, and Slack in group projects.
- **Communication:** Ran strategic meetings, and presented projects to peers.
- **Problem-Solving:** Tackled low-level system challenges like process control, sockets, and inter-process communication.

EDUCATION

Candidate, Honours Bachelor of Science (Coop)

2024 - PRESENT

University of Toronto Scarborough, Toronto ON

Specialist in Computer Science (Coop), Major in Statistics

Awards: President's Scholar of Excellence Program (\$15 000)

ACADEMIC EXPERIENCE

Software Tools and Systems Programming - CSCB09

MAY 2025 – AUG 2025

University of Toronto Scarborough, Scarborough ON

- Developed shell scripts, a Battleship game with network sockets, and reimplemented Unix piping in C using forks and pipes.
- Gained hands-on experience with **Unix** systems programming, including file systems, signals, and I/O multiplexing.

Computer Organization - CSCB58

MAY 2025 – AUG 2025

University of Toronto Scarborough, Scarborough ON

- Built a Tetris clone in **MIPS assembly** as the final project, applying low-level programming and hardware concepts.
- Gained hands-on experience with logic gates, FSMs, processor components, memory, and assembly programming through labs and assignments.

PROJECTS

Library System – Personal Project

AUG 2025

- Built a full-stack library management system using **Flask**, **SQLAlchemy**, and **Tailwind CSS**, with secure librarian login and session-based authentication.
- Designed and implemented **database models** for users and books, with features for borrowing, returning, and overdue email reminders.
- Integrated the **OpenLibrary API** to fetch and add books automatically, enhancing usability and scalability.
- Delivered a responsive, modern UI with Tailwind CSS, improving user experience for book and member management.

WellGlobe – TerraHacks 25'

AUG 2025

- Developed *WellGlobe*, a full-stack travel health advisory app using **React**, **TypeScript**, **TailwindCSS**, **FastAPI**, and **Gemini AI**.
- Implemented real-time features including health advisories, vaccine recommendations, nearby clinic mapping with Google Maps API, and an AI-powered chatbot.

- Designed a responsive, animated frontend with React + Framer Motion and built secure, scalable backend endpoints with FastAPI.
- Collaborated in a **Git-based workflow** (branching, pull requests, code reviews) to manage contributions and ensure smooth version control.

GreenerThanYouThink – ElleHacks 25'

FEB 2025

- Created an interactive website using **HTML**, **CSS**, and **JavaScript** based on user research and needs.
- Won Best Domain Name for creativity.

Balloon Defence – School Project

DEC 2023

- Designed and developed *Balloon Defense*, a **Java**-based twist with it's GUI on the classic tower defense genre, featuring unique mechanics such as defending a balloon against waves of pins.
- Applied **object-oriented programming principles** on to design modular and reusable components for enemies, defenses, and game logic.
- Conducted play testing with peers, leading to positive reception from students and making the game a competitive and engaging experience.

StudyFlow – Apple Swift Apps and Entrepreneurship Co-op

JUN 2023

- Designed and developed *StudyFlow*, an iOS productivity app aimed at helping students manage study time through personalized plans and gamification.
- Implemented the **interactive quiz feature in Swift/Xcode**, reinforcing learning and engagement.
- Created a **Figma prototype** showcasing UI/UX design, user-centered workflows, and planned features such as study plans and reward systems.
- Applied **user-centered design principles** to deliver a calming, intuitive interface for student productivity.

WORK EXPERIENCE

Apple Swift Apps and Entrepreneurship Co-op — iOS Student Developer

FEB 2023 – JUN 2023

Remote

- Researched the app market to identify trends and opportunities for innovation, resulting in an app idea that was presented and well-received by multiple school board members and business owners
- Completed the Apple Swift curriculum and DiS: Explorations workbook to develop technical skills in Xcode, resulting in the creation of multiple apps using Xcode knowledge.
- Coded a working prototype of an app using Swift, Xcode and incorporated UI design with Figma that effectively presented the app's functions and goals.
- Created and delivered an elevator pitch to clearly convey the app's potential value which was; shown to local company owners and Apple education team members, who gave it positive feedback.

VOLUNTEER EXPERIENCE

Yearbook Committee — President

OCT 2021 – JUN 2024

Middlefield Collegiate Institute, Markham ON

- Designed a yearbook that was well-received and enjoyed by many by refining 50+ yearbook pages on Canva to guarantee page flow and cohesiveness
- Improved department cooperation through frequent meetings and excellent communication with 10 executives and 50+ members, leading to faster and more efficient meeting of yearly milestones.
- Uploaded designed pages to a publishing company using a self-learned hardcover printing application, sorting through 100+ images and resizing 150+ pages in a timely manner.