

# HAN XHENG CHEW

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## Education

**University of Toronto (2026):** Computer Science and Economics @ St George

## Personal Projects

Portfolio-2022: Completely responsive personal website. (shaaaaame.github.io)

- Built using **React, JavaScript, HTML & CSS**. Animations implemented using **framer-motion** and **react-transition-group** libraries to create professional appeal.
- Designed on **Figma**. Each page designed separately as individual frames for easy transition to code structure.

Support-me: a full-stack web platform for academic and mental health peer support. (built for Newhacks hackathon)

- Built using **React, MaterialUI, Appwrite, JavaScript, HTML & CSS**. Won award for best use of Appwrite.
- Designed on **Figma**. Incorporated design philosophies, colour theory, and project mission to create user-centred experience.

Untitled: 2D story-based platformer game with hand drawn pixel art.

- Built using **Unity** in **C#**. Structured using observer design pattern for readability and organisation of scripts.
- Pixel art drawn in **Aseprite**. Incorporated pixel art techniques (e.g sub-pixel animation, anti-aliasing, dithering) and strict colour palettes to create atmosphere according to storyline.

PhysSim: a simulation of physics experiments such as Galperin's Billiards and Rutherford's Gold Foil experiment.

- Built using **Python** with **pygame** for visualisation and **pymunk** for physics calculations.
- Tested and compared results to theory by comparing predicted results with simulation.

## Skills

Python, Django, C#, Unity, JavaScript, HTML/CSS, C++, Java, React, Figma, SQL, Android Studio, Adobe Photoshop & Illustrator

## Awards

**Competitive programming:** Malaysian Coding Challenge: Gold, World Computing Challenge: Gold

Oxbridge Academic Exploration Competition: 1<sup>st</sup> place

- Researched and wrote paper on energy efficiency in software engineering, specifically on energy-consuming code of certain processes in the mobile application life cycle.
- Proposed a model to identify energy bugs in software to minimise energy wastage. Model built based on common trends of energy wastage in applications.

## Leadership Experience

**Head Prefect, 2020**

- Promoted and supported charities by organising school-wide events to raise awareness and encourage donations to the needy by handling the cash flow between students and the charity.
- Acted as intermediary between SLT (Secondary Leadership Team) and the student body to solve issues based on student feedback, including sanitary and administrative issues.

## Volunteer Experience

**TzuChi Foundation, 2019-2021**

- Promoted environmental protection practices to raise awareness on consumption of unrecyclable waste.
- Frequently participated in clean-ups, waste-sorting, etc to provide a clean and inviting environment for pedestrians.