Jen Tat

BSE student offering a strong foundation in software engineering and programming principles. Highly retentive and can quickly master new technologies. Strong troubleshooting and problem solving skills with an analytical mind. Successful and enthusiastic working in both team and self-directed settings. Able to convey information clearly and persuasively both orally and in writing.

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EDUCATION

Software Engineering, Honours
University of Waterloo

09/2021 - 12/2026   *President's Scholarship of Distinction*

WORK EXPERIENCE

Computational Cancer Genomics Analyst
The Hospital for Sick Children

01/2025 - 05/2025

Achievements/Tasks

- Contributing to the **Precision Child Health** project by spearheading the development of the data-sharing module for an international collaborative project and new methods to find cancer-causing variants in large data sets of cancer gene panels and whole genomes using **Slurm, Nextflow, Docker, Singularity, Python**.

Full-Stack Engineer
VCT Group Inc.

05/2024 - 08/2024

Achievements/Tasks

- Contributed to the design and implementation of **REST APIs** using **Spring Boot**, and efficient database schemas using **PostgreSQL** for the ERP Platform.
- Led the front-end development to MVP using **ReactJS**.

Software Developer
Euna Solutions

09/2023 - 12/2023

Achievements/Tasks

- Integrated **REST APIs** and back-end services, to process user approvals data.
- Synthesized type checking and type safety to codebase through adding **TypeScript** to compilation/build step.

Software Developer
Bonfire Interactive

01/2023 - 04/2023

Achievements/Tasks

- Designed and implemented **REST APIs** and back-end services to automate the processing of client contract data.
- Integrated **DocuSign and Adobe Sign**, into front- and back-end using **NodeJS, AngularJS, ReactJS, MySQL**.

Lead Tech Specialist, Software Developer
Build A Dream

05/2022 - 09/2022

Achievements/Tasks

- Spearheaded the development of their **first mobile app** using **ReactNative** and **first flagship website** utilizing **WordPress**, **custom CSS and JavaScript**.

SKILLS

Python   Java   JavaScript   Assembly   C

C++   C#   SQL   HTML   CSS   PHP

HapiJS   NodeJS   AngularJS   ReactJS   MUI

Mustachio   TipTap   Git   Figma   BitBucket

Jira   Postman   AWS Cloud9   Spring Boot

PERSONAL PROJECTS

RTX
- Implemented a real-time executive (RTX) on the **ARM Cortex M4 microprocessor** using chip **STM32F411RE**.
- Provided a basic multi-programming environment that supports priority (via deadlines), pre-emption, and dynamic memory management.
- Developed **RTX** using **C and ARM Assembly Language**.

Biquadris ⬈
- Created a Latinization of the game Tetris, expanded for two player competition; utilizing **C++** and **MVC**.
- Developed both a text-based display and aesthetically-pleasing graphical display of the game board.
- Produced a system that encapsulates the decision-making process by offering multiple levels of difficulty and special actions.

User Experience Optimization Device ⬈
- Created a **Raspberry Pi** device that detects the ambient noise and brightness levels in any given environment.
- Developed an application and graphical user interface that adjusts the volume and screen brightness of the user's device to best suit the user's external conditions.
- Utilized light sensors, microphone, and various Python libraries (eg. **Tkinter**, **PyCaw**, etc.).

Literary Game for Kids ⬈
- Developed an educational interactive game targeting elementary school faculty that uses data from popular children's books.
- Utilized various Python libraries (eg. **Tkinter**, **Python Imaging Library**, etc.).

ORGANIZATIONS

Women in Engineering (WiE) & Women in Computer Science (WiCS) (08/2021 - Present)

Waterloo Rocketry (05/2022 - Present)

IT Advisory Board (09/2022 - Present)

LeetCode Club (09/2024 - Present)

ACTIVITIES

Hackathon Founder   Cashier   Library Volunteer