

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.

✉ j4tat@uwaterloo.ca

☎ (905) 580-2868

📄 JenTat.github.io

🐙 github.com/JenTat

EDUCATION

Software Engineering, Honours University of Waterloo

09/2021 - 04/2026

- President's Scholarship of Distinction

WORK EXPERIENCE

Computational Cancer Genomics Analyst The Hospital for Sick Children

01/2025 - 05/2025

- Spearheading the development of a data-sharing module, a long-read RNA-seq pipeline that converts paired end .FASTQ files to TPM file, using **Slurm, Docker, Singularity, Python**.
- Developed new pipelines 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

- 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

- Integrated **REST APIs**, back-end services, and front-end components to process user approvals data using **NodeJS, AngularJS, ReactJS, MySQL**.
- Synthesized type checking and type safety through converting their **JavaScript** codebase to **TypeScript**.

Software Developer Bonfire Interactive

01/2023 - 04/2023

- 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

- 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

Nextflow

Docker

Singularity

Git

Figma

AWS

Spring Boot

Slurm

MUI

PERSONAL PROJECTS

In All of My Developer Positions, I Strive To...

- Improve old and align new front end components to be highly accessible (WCAG 2.0+ compliant).
- Remove redundant code.
- Add comments for readability.

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)