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

- Built a long-read RNA-seg pipeline using **Slurm, Docker, and** Python to convert over 2,000 paired-end FASTQ files into normalized TPM matrices.
- Designed and deployed variant discovery pipelines on HPC using Nextflow, Docker, and Python for over 10,000 cancer genome samples, identifying more than 1.2 million candidate somatic variants with 98.6% precision.

Full-Stack Engineer VCT Group Inc.

05/2024 - 08/2024

- Delivered RESTful APIs using Spring Boot and PostgreSQL to support ERP platform functionalities, improving backend response times by 60% under production load.
- Led front-end development from concept to MVP using **ReactJS**, enabling pilot deployment for enterprise users.

Software Developer **Euna Solutions**

- 09/2023 12/2023
- Integrated REST APIs, backend services, and frontend components using NodeJS, AngularJS, ReactJS, and MySQL to streamline user approval workflows, reducing end-to-end processing time by 40%.
- Converted a legacy JavaScript codebase to TypeScript, preventing over 150 type-related bugs in pre-production environments.

Software Developer

Bonfire Interactive

01/2023 - 04/2023

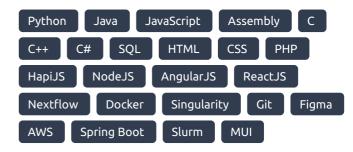
• Integrated DocuSign and Adobe Sign into both front-end and back-end, enabling seamless e-signature workflows and improving contract turnaround times by 35%.

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



PERSONAL PROJECTS

In All Roles, 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

- o 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)