

Warrick Tsui

647-619-9282 | warricktsui226@gmail.com
<https://www.linkedin.com/in/warrick-tsui-1a83772a3/> |
<https://warrickt.github.io/WarrickTsuiPortfolio/>

Motivated and innovative Computer Engineering Student with 4+ years of programming experience. Full-stack developer with passion in web development and AI.

Education

Bachelor's of Applied Science and Engineering in Computer Engineering + PEY Co-op

University of Toronto
September 2023 - April 2028 (Expected)

Dean's List Scholar | Top 30 Academic Standing in Electrical and Computer Engineering | 94% Average

Technical Skills

Languages: Python | Java | C | C++ | JavaScript | TypeScript | HTML | CSS | MATLAB

Tools: ReactJS | Node.js | Express.js | Pandas | SQL | PostgreSQL | PyTorch | OOP | Web APIs |
Firebase | Flask | Selenium | Git | Verilog | LTSpice | ModelSim | Quartus | MS Office | KanBan

Work Experience

ML Developer

Feb. 2025 - Present

University of Toronto Trustworthy Machine Intelligence Team, Toronto, ON

- Training **XLS-R** model and writing test implementation **PyTorch** scripts for Deepfake Audio Detection
- Extracted **time-frequency resolutions** using **Numpy** to construct multi-resolution spectrograms

Backend Software Developer

Jan. 2025 - Present

University of Toronto Creative Computing Association, Toronto, ON

- Training ML-based ambient music generator using **PyTorch** in a backend developer team of 10
- Implemented **data augmentation** techniques like time-stretching and pitch-shifting to train ML model

Software Developer

Jan. 2025 - Present

University of Toronto Engineering Student Consulting Association, Toronto, ON

- Developing a custom **Stock Trading Chart** using **TradingView API** on **ReactJS**, **Pandas**, and **Node.js**
- Successfully displayed **backtesting mechanisms** of up to **5 years** on an investment firm website

Driverless Mapping Team Member - Web Development Project

Oct. 2024 - Present

University of Toronto Formula Racing Team, Toronto, ON

- Prototyped and designed an Error Graph Widget application using **ReactJS**
- Successfully plotted differences between **100+ estimated positions** and true positions of cones used for race vehicle testing

Programming Classroom Facilitator

June 2024 - Present

CodeSky/ArtSky Learning Centre, Markham, ON

- Organized and executed **2 weekly 90-minute lectures** on Scratch and **JavaScript/CSS/HTML/C++**
- Directed training sections for the Waterloo Mathematics Competitions; **3 students obtained merits**
- Propelled coding class sizes to **grow by 120%** from June 2024 to September 2024

Projects

Sinker - Hack Canada Best Google Build with AI Hack

February 2025

- Utilized **Next.js** and **Material UI** to construct Frontend UI of cybersecurity simulation testing platform
- Handled **PostgreSQL** database queries using **Prisma ORM** to encrypt and store user data
- Implemented personalized, simulated phishing attempts to backend users using **Gemini API**

Deervolution - DeerHacks IV 2nd Place Overall

February 2025

- Helped construct a Front-end UI using **TypeScript** and **React Native** to build a mobile game application promoting outdoor activities after building a prototype with **Figma**
- Utilized **Supabase** and **OAuth2** to implement user login authentication and database allocation
- Successfully handled **HTTP requests** between **Node.js** server and frontend using **Express.js**

ReliefGrid - NewHacks Hackathon Project

November 2024

- Create a web application easing natural disaster resource management in a team of 4
- Implemented real-time data synchronization for resource management using **Firebase** and **JavaScript**