

Yanzhen Chen

(825)-747-1417 | yzc.chen@mail.utoronto.ca | [linkedin.com/in/yanzhenchen](https://www.linkedin.com/in/yanzhenchen) | github.com/YheChen | yanzhenchen.ca/

EDUCATION

University of Toronto

Toronto, ON

HBSc. Mathematics Major and Statistics Major, Computer Science Minor

Expected Graduation: May 2026

Relevant Coursework: Software Tools and Systems Programming, Software Design, Theory of Computation, Intro to Computer Science, Intro to Statistical Reasoning and Data Science

TECHNICAL SKILLS

Languages: Python, Java, C, JavaScript, TypeScript, HTML/CSS, MySQL, R

Web & Mobile Frameworks: Next.js, Node.js, Express, Expo, React Native, Tailwind

Libraries & Packages: React.js, Pandas, NumPy, PyTorch, Java Swing

Developer Tools: Vim, MongoDB, Firebase, Google Colab, Jupyter, SAS Studio, Git, Markdown

PROJECTS

Computer Science Student Union Website | *Next.js, Typescript, Tailwind* | [Link](#)

April 2025

- Independently rebuilt the CSSU website and resolved long-standing Netlify deployment issues, enabling updates after over a year of downtime.
- Improved image loading speed by **40%** and modularized components to simplify future extensions such as the events list and about page.

Gyroscopic Phone Authenticator | *Next.js, React Native, Expo, Tailwind, Firebase* | [Link](#)

January 2025

- Pioneered a cross-platform authentication flow using a gyroscope-based phone tilt mechanism.
- Bridged a **Next.js** web interface with a **React Native** mobile app using real-time data transmission via Firebase.
- Enhanced security and user experience through intuitive device interactions and dynamic visual cues with **Tailwind**.
- Ensured full compatibility across both **iOS** and **Android** by adapting gyroscope input handling and UI responsiveness for each platform.

Movie Review Platform | *Java, JavaSwing, Maven* | [Link](#)

November 2024 - December 2024

- Implemented a scalable movie review system for **50+** user accounts with three of my peers, enabling seamless review creation and retrieval through **MongoDB** storage.
- Enhanced user experience by integrating The Movie Database API for title and poster retrieval.
- Streamlined backend operations, improving our original data access speed by **20%** through efficient Java and API integration.

Player Profile Analyzer | *Next.js, React.js, Typescript, Tailwind* | [Link](#)

May 2024 - November 2024

- Analyzed performance metrics for 150,000,000+ players** by integrating the Riot Games API, improving data accessibility for end-users.
- Boosted app security** by implementing a Nodemon proxy server, ensuring API key confidentiality and minimizing exposure risks.

Patient Health Record Summarizer | *React.js, Python, JavaScript, HTML/CSS* | [Link](#)

February 2024

- Designed and implemented the frontend of a **React.js** web application in collaboration with three teammates at the **TreeHacks 10 Hackathon**, enabling simulation of patient health records via Synthea.
- Integrated a Code Llama large language model, resulting in the successful processing and summarization of complex patient data.
- Collaborated in a fast-paced hackathon environment, achieving a functional prototype within **36** hours, showcasing the potential for AI-enhanced healthcare solutions.

LEADERSHIP EXPERIENCE

Vice President of External Relations

May 2024 – April 2026

Computer Science Student Union

Toronto, ON

- Secured **\$9,000** in sponsorships by establishing and collaborations with Google, Dayforce, Manulife and SOTI.
- Enhanced professional development opportunities and increased union event attendance by **30%** through organizing an information session with Manulife and a resume review panel with Dayforce, each attended by over **50** students.
- Successfully organized a career fair featuring **four** companies with **300** student attendees, facilitating valuable networking and recruitment opportunities.