





Emily Chang

EC my-portfolio ·  Emily Chang ·  milychang19 ·  echang07@uoguelph.ca ·  +1 (416) 451-9306

Education

Bachelor of Computing, Computer Science (Co-op)

Sep 2022 - Apr 2027

University of Guelph

- Dean's Honour List, GPA: 3.9
- Minor in Mathematics
- Relevant Courses: Data Structures & Algorithms, Object-Oriented Programming, Operating Systems, Cryptography, Statistic, Data Science

Skills

Programming Languages: Java, JavaScript, TypeScript, Python, C/C#, Dart, SQL, HTML, CSS

Frameworks: React, Next.js, Express.js, Flutter, TailwindCSS, Swing, jQuery, JUnit

Tools & DevOps: Git, Docker, Jenkins, Azure DevOps, Linux, Figma, PostgreSQL, ImageJ, Atlassian

Work Experiences

Software Developer, Magnet Forensics

Sep 2024 - Dec 2024

- Enhanced artifact parsing by updating SQL databases, refining schemas, and writing parsing logic in C# to support digital forensics investigations and incident response.
- Debugged missing data, conducted artifact regression testing and case metrics, and analyzed hit differences to ensure accuracy.

VR/AI Developer, Green Contributor

May 2025 - Aug 2025

- Designed and developed backend architecture with Supabase for database management, and contributed to db schema design and query functions for an Android/iOS educational app.
- Integrate RESTful APIs and JWT auth for secure access and frontend-backend communication.
- Automated microplastic particle analysis (Python, OpenCV, ImageJ), applying perspective transformation to distorted scans and reducing manual processing time over 90%.

Front-End Developer, BizZone

Mar 2022 - Jun 2022

- Converted wireframes to websites using HTML5/CSS3 and managed multimedia content.
- Actively participated in daily standups as part of the Agile workflow, demonstrating strong communication and discipline while working remotely.

Teaching Assistant, University of Guelph

Jan 2024 - Apr 2024

- Instructed 100+ students Discrete Mathematics concepts through effective communications and facilitating tutorials and office hours.

Residence Assistance, University of Guelph Student Housing

Aug 2023 - Present

- Facilitated engaging community-wide events and provided resources for 40+ students.
- Employed MS Office for communications, analysis, and documentation to enforce building policies, safety protocols, and support EDI initiatives.

Head Digital Designer, Google Developer Student Club

Jan 2024 - May 2025


Personal Projects

frij.io | TypeScript, Next.js, Firebase, Firestore

 milychang19/frijio

- Won the Best AI Award at Hack Canada by utilizing Google Vision API for receipt scanning (OCR) and Perplexity AI for recipe recommendations and expiration tracking.
- Addressed food insecurity through efficient food management within households, enhancing communication and reducing food waste, with Firestore used for database management.

Mancala Board Game | Java, OOP, Swing, JUnit

 milychang19/MancalaGame

- Employed object-oriented game design and serialization to implement diverse settings and components, enhancing code modularity and extensibility.
- Integrated unit testing to validate inheritance abstraction layers and error handling.

Billiard Pool Game | Python, C, MySQL, JavaScript, HTML/CSS

- Integrated C-based library into HTTP server with SQL for game state management.
- Enabled real-time data exchange and content updates using jQuery and DOM.