

Ricky Tang

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EDUCATION

- **University of Waterloo**

Bachelor of Software Engineering - Honours

Sep 2025 - Apr 2030

EXPERIENCE

- **Brick Works Academy** [🌐](#)

Co-op Camp Counselor

Jun 2024 - Jul 2024

Waterloo, Canada

- Led robotics group for campers aged 9-14, teaching Python-based LEGO programming
- Guided a team project integrating Python with LEGO chip to build a writing machine robot
- Organized interactive challenges to boost engagement and teamwork

PROJECTS

- **FitSage: AI-Powered Fitness Diary Web App**

Tools: Next.js, Supabase, Gemini API, Hugging Face, Web Speech API, Tailwind CSS

May 2025 - Present



- Built Next.js app with text and voice input using Web Speech API and Hugging Face punctuation restoration
- Engineered AI pipeline processing diary entries to Gemini to extract workouts and generate suggestions
- Created dashboard with body metrics, weekly charts, and workouts page displaying history with AI advice
- Implemented workout curation analyzing recent fitness activities to suggest 8-12 tailored exercises

- **CheFlow: Interactive Culinary Management System**

Tools: Processing, G4P (GUI Library)

Jan 2025



- Built recipe management app that suggests meals based on available ingredients and time constraints, reducing food waste and decision fatigue
- Developed intelligent matching algorithm to optimize ingredient usage and grocery shopping efficiency
- Created data visualizations (scatter plots, regressions, heatmaps) for cooking habit analytics
- Designed interactive GUI with Processing's G4P for recipe entry and meal planning

- **SwiftNotes: Rewarding Encrypted Note App**

Tools: Processing, G4P (GUI Library)

Nov 2024



- Led a 3-member team developing secure note-taking app to help users organize ideas effortlessly
- Engineered password protection and auto-save features ensuring data security and reliability
- Built tabbed interface with theme/font options for comfortable long-term usage
- Created writing rewards system to transform productivity into engaging experience

SKILLS

- **Languages:** C++, Python, TypeScript, JavaScript, Processing, HTML, CSS, LaTeX
- **Frameworks:** React.js, Next.js, Tailwind CSS, shadcn/ui, daisyUI, Node.js, Express.js
- **Tools & Technologies:** MongoDB, Supabase, CMake, Qt, Pandas, Git, GitHub, Hugging Face, Web Speech API, Vercel, Figma, Motion Canvas

ACHIEVEMENTS

- Canadian Team Mathematics Contest: 3rd Place Nationally (2025)
- Euclid Mathematics Contest: Top 5%, Distinction (2025)
- Canadian Senior Mathematics Contest: Top 2%, Distinction (2024)
- Fermat Mathematics Contest: Top 2%, Honour Roll Group V (2024)