

WILLIAM YANG

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SKILLS

- **Programming Languages:** Python, JavaScript, TypeScript
- **Technologies & Frameworks:** React.js, TailwindCSS, Next.js, SvelteKit, Bootstrap, Django, PocketBase, PyGame, Git, SQLite, Postgres



EXPERIENCE

- **Software Developer** March 2025 - Present
Digital Flight Dynamics Remote
 - Engineered **high-fidelity Airbus A350-1000 instrument replicas** using React and SVG, enabling a **study-level flight simulation** addon in Microsoft Flight Simulator
 - Optimized **modular component design**, reducing code bloat by **40%**
 - Collaborated using professional GitHub workflow, managing pull requests, code reviews, and issues
- **Competitive Programming Tutor** September 2023 - March 2025
MMHS Computer Science Club Markham, Canada
 - Mentored **5–10 students per session** for the Canadian Computing Competition
 - Taught **core Python programming concepts**, algorithms, and data structures
 - Centralized attendance tracking, created statistics to pivot meeting topics based on club engagement

PROJECTS

- **Canadian Computing Competition Solutions Repository** September 2024 - Present
React.js, TailwindCSS, PocketBase 
 - Revamped, scaled, and open-sourced the largest solution repository for the CCC, with **2,800+ users** and **270+ curated solutions**
 - Automated, standardized, and simplified access to **1,000+ test cases** using Python
 - Redesigned legacy HTML-only interface with **React.js + TailwindCSS**
 - Integrated **PocketBase** for a community forum, enabling **dozens** of new user-submitted solutions
- **A350 Flight Management System Portfolio** August 2025 - Present
Next.js, TypeScript, React.js, TailwindCSS, SVG 
 - Designed a **high-fidelity Airbus A350 FMS-styled** portfolio to showcase passion of aviation and tech
 - Implemented features like a **working cockpit printer** and realistic **start-up animation sequence**
 - Heavily utilized **SVG** for custom graphics inspired by Airbus UI

HONORS AND AWARDS

- **Wolfram Award for Best Use of API - IgnitionHacks 2024** August 2024
React.js, Wolfram Alpha API, TensorFlow.js, OpenAI API 
 - Selected as one of **9 winning projects out of 434 participants** at IgnitionHacks 2024
 - Developed **Mathify**, a web-app which generates video solutions to math problems in the style of 3Blue1Brown
- **Second Place Overall - RecessHacks 4.0** September 2024
Python, OpenAI API, React.js 
 - Achieved **2nd place out of 200+ teams** at RecessHacks 4.0
 - Built **NoteConvert**, an AI web-app that transforms audio recordings into structured study notes
- **Software Engineering Entrance Scholarship** May 2025
University of Waterloo
 - Awarded to **several outstanding** incoming students for **exceptional academic achievement and extracurricular initiative**

EDUCATION

- **University of Waterloo** September 2025 - April 2030
Honours Bachelor of Software Engineering, Co-op Waterloo, Canada