# **WILLIAM YANG**

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### **EDUCATION**

University of Waterloo

September 2025 - April 2030

Honours Bachelor of Software Engineering, Co-op

Waterloo, Canada

### **SKILLS**

- Programming & Languages: Python, JavaScript, TypeScript, C, C++
- Frameworks & Tools: React.js, Next.js, React Native, TailwindCSS, SvelteKit, Django, FastAPI, PocketBase, PostgreSQL, SQLite, Git, Expo, Docker

### **EXPERIENCE**

Software Developer

March 2025 - Present

Digital Flight Dynamics

Remote

- Engineered high-fidelity Airbus A350-1000 instrument replicas using React and SVG for a study-level flight simulation
- Fully developed OIS loadsheet+settings menus, shipped to production using professional Git workflow
- Refactored 15+ modular components across OIS dashboard, reducing code redundancy by ~40%

## Competitive Programming Tutor

September 2023 - March 2025

MMHS Computer Science Club

Markham, Canada

- Mentored 5-10 students weekly across 20+ sessions, fostering algorithmic problem-solving skills
- Delivered lessons in Python to diverse skill levels, adapting teaching style to maximize engagement
- Analyzed attendance and engagement data to refine sessions, boosting retention and participation

#### **PROJECTS**

# Canadian Computing Competition Solutions Repository

September 2024 - Present

React.js, TailwindCSS, JavaScript, PocketBase



- Revamped, scaled, and open-sourced the largest solution repository for the CCC in 3 weeks, with 3,000+ users and 270+ curated solutions
- Leveraged Python to automate, standardize, and simplify access to 1,000+ test cases for CCC problems
- Migrated legacy HTML-only site to a modern and responsive React.js + TailwindCSS interface
- Integrated PocketBase for a community forum, allowing dozens of new user-submitted solutions

## A350 Flight Management System Portfolio

August 2025 - Present

Next.js, TypeScript, React.js, TailwindCSS, SVG



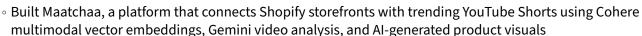
- Engineered a fully interactive Airbus A350 FMS-style portfolio with functional cockpit printer and subsystems in TypeScript, replicating real-world avionics precision
- Designed custom SVG graphics and UI components based on Airbus instruments for detailed immersion

# **HONORS AND AWARDS**

• Finalist - Hack The North

September 2025

Cohere, Pinecone, Gemini, Blacksheep, Nano Banana



Achieved Top 12 Finalist out of 1,000+ participants at Canada's largest hackathon

## Wolfram Award for Best Use of API - IgnitionHacks 2024

August 2024

React.js, Wolfram Alpha API, TensorFlow.js, OpenAI API, Manim



- Developed Mathify in **36 hours**, a web app converting math problems into animated explanations using Wolfram Alpha API (parsing), Manim (diagrams), and OpenAI API (explanations)
- Selected as 1 of 9 winners out of 434 participants for best use of Wolfram Alpha API

## Software Engineering Entrance Scholarship

May 2025

University of Waterloo

Awarded to several outstanding students for academic excellence and extracurricular initiative