

# WILLIAM YANG

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## EDUCATION

### • University of Waterloo

Honours Bachelor of Software Engineering, Co-op

September 2025 - April 2030

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

Digital Flight Dynamics

March 2025 - Present

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

MMHS Computer Science Club

September 2023 – March 2025

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

React.js, TailwindCSS, JavaScript, PocketBase

September 2024 - Present



- 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

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

August 2025 - Present



- 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

Cohere, Pinecone, Gemini, Blacksheep, Nano Banana

September 2025



- Built Maatchaa, a platform that connects Shopify storefronts with trending YouTube Shorts using Cohere multimodal vector embeddings, Gemini video analysis, and AI-generated product visuals
- Achieved **Top 12 Finalist** out of **1000+ participants** at Canada's **largest hackathon**

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

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

August 2024



- 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

University of Waterloo

May 2025

- Awarded to several outstanding students for academic excellence and extracurricular initiative