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



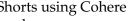
- Engineered a fully interactive Airbus A350 FMS-style portfolio with functional cockpit printer and subsystems in TypeScript, replicating real-world avionics precision
- Designed custom SVG graphics and UI components based on Airbus instruments for detailed immersion

HONORS AND AWARDS

Finalist - Hack The North

September 2025

Cohere, Pinecone, Gemini, Blacksheep, Nano Banana



- 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

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