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 **component modularity** in personal pull requests, reducing code redundancy by **~40%**
  - Actively contributed through **pull requests, code reviews, and issue tracking** using a professional GitHub workflow in a **5M+ line codebase**

- **Competitive Programming Tutor** — *September 2023 - March 2025*
  MMHS Computer Science Club — Markham, Canada
  - Mentored groups of **5–10 students** on competitive programming and algorithmic problem solving
  - Designed skill-tailored lesson plans covering **Python, data structures, and algorithms**
  - Evaluated student engagement through centralized attendance tracking to tailor sessions to student needs

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
  - Migrated **legacy HTML-only site** to a modern, scalable **React.js + TailwindCSS** interface
  - 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
  - Modeled **working cockpit printer** and **animated start-up sequence** to enhance interactivity and creativity
  - Heavily utilized **SVG** for custom graphics inspired by real 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** students for **academic excellence and extracurricular initiative**

EDUCATION

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