

# BRIAN GAO

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## SKILLS

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**Languages** HTML/CSS, JavaScript, Ruby, C, C++, Python  
**Frameworks** React, React Native, Node.js  
**Libraries/Tools** React Navigation, Git, Jira, Confluence, VS Code, Chrome Dev Tools, Oracle VM

## PROJECTS

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### Etch-a-Sketch | React, CSS, Git

- Created a web drawing application that supports many artistic tools for a delightful user experience
- Refactored code with **React** after revisiting the project, resulting in a **20% reduction in code length**
- Employed React functional components and hooks to simulate drawing by manipulating the DOM

### Fitness 15 (XHacks Project) | React Native, React Navigation, Node.js

- Developed a mobile fitness app with **React Native** that promotes healthy living by connecting people with gym buddies
- Implemented user authentication logic by extracting and comparing user input to data from database
- Designed screen navigation system with **React Navigation** to allow for a seamless user flow

### Tic-Tac-Toe | Ruby, Git

- Built a terminal-based recreation of Tic-Tac-Toe that features clear visuals/instructions to increase user convenience
- Integrated **Git** to the workflow by staging/committing often to create clean and documentable code
- Modelled system architecture after OOP principles, resulting in an increase in code reusability

### Calculator | JavaScript, HTML/CSS, Git

- Designed a web calculator with complex functionality and keyboard support that emphasizes user-centered design
- Increased input reliability by constructing 10 edge cases and manually testing them against the code
- Facilitated temporary data storage using HTML data attributes to ensure that calculations were made correctly and quickly

## EXPERIENCE

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### Firmware Team Member | Python, C, Jira, Confluence

Sep 2021 – Present

Midnight Sun Solar Car Team

Waterloo, ON

- Ensured **100% code coverage** by completing onboarding process to program firmware and write unit tests (in progress)

### Receptionist | Excel, Word

Nov 2018 – Apr 2020

Ware Academy of Music

Toronto, ON

- Increased sales by 10% by cold calling 40+ past clients and promoting new lessons

## AWARDS

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### YCDSB 2021 Top Scholar

Jul 2021

York Catholic District School Board

Thornhill, ON

- Received highest rating **out of 6000 students** for achieving a **100% average**

### School Awards (6)

Jun 2021

St. Robert Catholic High School

Thornhill, ON

- Achieved 1st place out of 400 students in 6 grade 12 subjects (3 math, 2 science, 1 humanities)

## EDUCATION

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### University of Waterloo

Sep 2021 - May 2026

BASc in Systems Design Engineering

Waterloo, ON

- Relevant Courses: Digital Computation (C++), Engineering Visualization (OnShape), Introduction to Design

## HOBBIES & INTERESTS

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Hiking, Basketball, Burgers (with poutine of course), Anime, K/DA (best music group ever)