

# Jeff Cao

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## SKILLS

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**Languages:** C++, JavaScript, HTML, CSS, Java, Python, SQL

**Developer Tools/Frameworks:** React, Git, Node.js, Latex, Firebase, Arduino

## EXPERIENCE

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### Web Developer

January 2021 – June 2021

*VHA Home HealthCare*

*Burlington, ON*

- Developed web-based visual representation of fundamental physiology concepts using React to improve the learning experience of 230 students.
- Utilized libraries including Recharts and RC-Slider together with CSS to build a reliable and interactive graph helping students better visualize the relation between inter-segmental angle and torque.
- Ensured the quality of the product by collaborating with a team to perform multiple quality checks then using Git for version control.

## PROJECTS

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### Portfolio Website

- Developed a responsive portfolio website using React and component CSS for styling to display personal achievements and projects with outstanding visuals.
- Created stateful widget component by implementing the EmailJS API for ease of contact.
- Optimized load times by 25% with Hostinger deployment for a smoother experience.

### Torque% Vs Angle of rotation

- Developed an interactive learning website using React and Node.js to help students better understand difficult biomechanics concepts. [Demo](#)
- Implemented Firebase to store app data for users on a remote Firestore database.

### Custom LED Longboard

- Designed and Built a LED longboard from the ground up by assembling and soldering the components to allow more customization.
- Programmed a variety of lighting effects by using C++ in Arduino IDE to achieve lighting effects not offered by the commercial product.

## ACADEMICS AND LEADERSHIP

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### Student Council Vice President

June 2021 – June 2022

*Nelson High School*

*Burlington, ON*

- Led 50 council members to help plan and organize holiday-themed activities, entertainment events, athletic tournaments to help improve the quality of life in high school.
- Organized and hosted a school wide March Madness basketball tournament with 800 participants from the student body to help students adjust to life after the pandemic.
- Raised a total of \$11,000 from events to help fund various charities.

### Academic Tutor

March 2018 – May 2022

*Self Employed*

*Burlington, ON*

- Worked as a peer tutor, helping other students with various math and science subjects including advanced functions, calculus, chemistry and physics.
- Successfully taught all 40 students, resulting in an average raise in percentage points of 7%.

## ACHIEVEMENTS & AWARDS

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**Gerard P. Murphy Valedictorian Award** | *Nelson High School* | \$4,500

July 2022

**President's Scholarship of Distinction** | *University of Waterloo* | \$2,000

July 2022

## EDUCATION

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### University of Waterloo

September 2022 – May 2027

*Candidate for Bachelors of Honours in Computer Engineering*

*Waterloo, ON*