

# Andre Ke

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## SKILLS

HTML, CSS, JavaScript, React, Java, Python, Git, C++, SolidWorks, Microsoft Office

## WORK EXPERIENCE

### Swim Instructor/ Lifeguard – City of Toronto (Winter 2022- Summer 2023)

- Planned and conducted educational swimming lessons for a wide range of patrons and levels in accordance with HIGH-FIVE standards.
- Continuously evaluated and tracked patron progress on test sheets to provide feedback to patrons.
- Ensured the safety supervision of participants during lessons and during leisure swims through supervision, accident prevention, education and rescue skills.
- Resolved complaints and issues using the HEAT technique to maintain public relations.

### Summer Camp Coordinator – TSCAC (Summer 2023)

- Coordinated planning, camp execution, and communication between 15 staff and volunteers through Google Workspace and online messaging platforms such as WhatsApp and Discord.
- Organized engaging lessons and activities that considered time, scheduling, and cost constraints.
- Mentored volunteers by supporting and encouraging them to take leadership roles in the camp.
- Communicated issues to supervisors and resolved them as a team during daily debriefs to continually improve camp through the PDCA cycle, resulting in higher camp satisfaction ratings

## OTHER EXPERIENCES AND PROJECTS

### Midnight Sun Solar Team – Electrical Hardware Sub team (Current)

- Creating wiring documentation for a motor control board on **Excel** using **Altium Designer** to view schematics and **Jira** to collaborate with the team.

### Home Monitor (Summer 2023 - Current)

- Creating a site that uses readings from a BME680 sensor and **Raspberry Pi** to visualize air quality.
- Utilized the **D3.js** library for data visualization of readings, **TinyDB** to store readings, and **Flask** to implement **RESTful** services and **APIs**.

### Hack The 6ix (Summer 2023)

- Created a Full-stack **React Native** app that classifies household waste and where to throw them.
- Utilized **Google Cloud Vision's API**, and **Hugging Face AI's** semantic search to match labels to items classified on Toronto Waste Wizard.
- Cultivated a productive work environment between a team of 4 using **Git** and **GitHub**.

### Robotics Team Member (Spring 2023)

- Created a robot using an Arduino, Bluetooth Module, IR Sensor, and Ultrasonic Sensor that could follow a line.
- Utilized **C++** to program the robot to follow a line autonomously or via a mobile Bluetooth terminal.

### Hospital Management (Winter 2023)

- Led a team of 4 members to create a hospital management program that keeps track of patient records and appointments using **Java** and **Java Swing**.
- Understood and implemented OOP structures and fundamentals of Data structures and Algorithms.

## EDUCATION AND CERTIFICATES

**University of Waterloo**, Candidate for Bachelor of Applied Science in Systems Design Engineering  
2023-2028

Life Saving Society - Standard First Aid with CPR C

Google Digital Garage - Fundamentals of Digital Marketing

Cisco - Introduction to Cybersecurity

FreeCodeCamp - Responsive Web Design, JavaScript Algorithms and Data structures.