Winston Zhao



Grade 11 student at Unionville High School, Web Design/Developer, Robotics Team Captain.

Education

September 2020 - Present

Unionville High School – STEM Program – Grade 11

Experiences

May 2022 - Present

VRC Team 25K – Founder & Captain

I founded Vex Robotics Competition Team 25K with some friends and we are competing in the 2022-2023 Vex Robotics Competition season. As team captain, I manage the team, and work on robot design, and program the robot. Currently on the team we have eight members.

August 2022 - Present

City of Markham – Program Leader Volunteer

Volunteering at the City of Markham as a Program Leader is a great opportunity for me to meet new people and contribute to the community. While volunteering, I help out at events, manage spaces such as the Markham Museum, and learn from other volunteers and employees. I also enhance my communication skills by interacting with customers and visitors.

February 2022 - May 2022

VRC Team 3150A – Programmer & Robot Design

While on Silver Owl Robotics Team 3150A, I worked with the team to produce a competitive robot for our local, provincial, and international Vex Robotics Competition tournaments. We have won three local live remote tournaments, and qualified to the 2022 Ontario Provincial Championships. We achieved the most prestigious award of 2022 Provincial Tournament Champion, and qualified to the international 2022 Vex Worlds tournament. At Vex Worlds we made it into the round of 16 in our division.

• VRC Team 839A - Head Programmer & Digital Development Team Lead

As the head programmer and digital development team lead of VEX Robotics Competition Team 839A, I managed our libraries of code for our robot. I collaborated with other programmers on Team 839A to solve problems and find new solutions to challenges we are presented to in VRC. I lead the team in using online technologies such as Microsoft Teams, Microsoft Office, SharePoint, and GitHub. On VRC Team 839A, I also contribute heavily to designing and building the robot for each season, using tools such as Fusion 360 CAD and MeshCAM. We have successfully ranked 6th in Ontario and qualified for the global VEX Worlds 2021 Championship.

August 2019 - March 2020

VRC Team 839Z – Programmer & Mechanical Team

As a member of the programming team and mechanical team on VRC Team 839Z, I worked on building the robot as well as programming it to complete the challenges presented in the VEX Robotics Competition. I learned new programming techniques as well as improved my skill with C++.

December 2020 - February 2021

Youth Programming | Code Club - Volunteer Instructor

At Code Club I volunteered weekly and taught youth from the GTA the basics of programming, such as loops, functions, and sensing using Scratch. We used Scratch to build small games, animations, and chat bots.

February 2019 - May 2019

Dr. X Academy – Student Volunteer

During my time volunteering at Dr. X Academy, I worked with other younger students interested in robotics and programming and helped with any questions that came up.

August 2018 - February 2019

• FLL Team Polaris | Programmer & Robot Engineer

On First Lego League Team #38474 Polaris, I worked on building the structure of the code as well as the main programming for our robot. I worked on mechanical design, building the robot to accomplish the missions in FLL. Our team managed to get all the way to provincials, placing 2nd. We also won our Qualifying tournament, as Tournament Champion.

Selected Projects

October 2022 - Present

The Drive Team Podcast & Website

Started a fun podcast with Evelyn Wong, The Drive Team. We talk with members of the competitive robotics community about their journey and experiences, sharing their highlights and inspiring current STEM students. Also made a simple website to listen to the podcast: https://thedriveteam.ca.

June 2022 - October 2022

Team 25K Website

Creating a new website for VRC Team 25K, https://25k.team. Collaborated with Anita Du.

Simple, fast, and fluid. This custom designed website built from scratch showcases information about the team elegantly. Vibrant shades of orange are used throughout, contrasting with the simple white backdrop. Text animations make the website come to life.

A single page website promotes important content, as the user can effortlessly scroll through the page. Optimised for all screen sizes, the experience is light and airy on all devices.

This website is handcrafted from scratch using HTML, CSS, and JavaScript, along with the Bootstrap framework, Locomotive Scroll package, and Material Symbols. No website builder needed!

December 2020 - February 2022

Team 839 Website

Designing, developing, and maintaining the Team 839 Website, https://www.839.team. This website was created using the Bootstrap framework, with HTML, CSS, jQuery, and JavaScript. The website displays content relevant to VRC Team 839, with articles and information about the team.

December 2020

VRC - Encore Online Challenge Video

Edited video for VEX Robotics Competition using Adobe Premiere Pro.

July 2020 - Present

Elapse VRC App Project

Contributing and maintaining the Elapse VRC app open-source project. This app aims to provide a better experience of the schedule of tournaments for VEX Robotics competitors. The app is in development with a cross-platform Flutter app, as well as a web-app developed with the React framework.

Controller Deskmats

Designed a game controller themed Deskmat and sold it as a group buy with TheKey.Company.

Achievements

May 2022

Skills Ontario Competition – Web Design and Development

Received **2**nd **place** silver award in the field of Web Design and Development at the 2022 Skills Ontario Competition. Created a website for a fictional online bookstore using HTML, PHP, and CSS, featuring a secure database and admin system for updating and creating products on the main website page, with mySQL. The website had an improved overall design and a better administration portal over last year.

February 2022

VRC – Provincial Champion

Our Vex Robotics Competition team received the most prestigious award, **1**st **place** Ontario Tournament Champions at the 2022 Vex Ontario Provincial Championships.

May 2021

Skills Ontario Competition – Web Design and Development

Received **2**nd **place** silver award in the field of Web Design and Development at the 2021 Skills Ontario Competition. Created a website for a fictional online dog collar store using HTML, PHP, and CSS, featuring a secure database and admin system for updating and creating products on the main website page, with mySQL.

January 2020

VRC – Tournament Champion

Our VEX Robotics Competition team received the **1**st **place** Tournament Champions award at Appleby Competition.

November 2018

• FLL - Tournament Champion

Our FLL Team Polaris won 1st place Tournament Champion at the Tomken Road Regional Qualifying Tournament.

Tools & Technologies

Proficient:

- HTML
- CSS
- JavaScript
- Fusion 360
- Microsoft Office/365
- Adobe Illustrator
- Figma

Intermediate:

- C++
- Python
- Flutter/Dart
- ReactJS
- Adobe Photoshop
- Adobe Premiere Pro
- Microsoft Azure

General Skills

- English
- Team Leadership

- UI Design
- Graphic Design

- Programming
- Web Development