

# William Qin

## Creator and Developer

I am a student with a passion for building solutions by programming and working with technology!  
I am always eager to learn new things, take opportunities to grow, and tackle difficult problems.

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## Skills

**Programming** C#, Java, Python 3, JavaScript, TypeScript

**Tools** Unity, Visual Studio, Android Studio, Eclipse, Git

**Web** HTML 5, Markdown, CSS 3, Bootstrap 4, jQuery, Angular, Jekyll (Ruby)  
Amazon Web Services (S3, CloudFront, Route 53, IoT, Lambda)

**Tech/APIs** Firebase, Arduino, Raspberry Pi, OpenCV, Amazon Alexa Skills, Virtual Reality

## Experience

**D&R Electronics** | Intern | Jul. – Aug. 2017

- Developed a Windows application in **C#** to automate message creation for road lightboard signs, saving up to an **hour** of worker time per message created
- Assembled parts for manufacturing vehicle electronic equipment
- Tested equipment for mechanical and electrical defects

**Team 4308: Absolute Robotics** | President | Sep. 2017 - Present

- Managed FIRST Robotics Competition team to raise funds and build an **industrial-sized robot**
- Established a strategy team to build a **Firebase** web app and collect data for making key decisions
- Led software team to program essential robot controls and **autonomous** driving mode in **Java**
- Effective robot design and strategy led to team success as **world championship divisional semi-finalists**

## Projects

**Vision Motion** | Android Application | Oct. 2017 – Jan. 2018

- Leveraged **real-time computer vision** with **OpenCV** on a phone camera to track the motion of an object and produce a line graph of its position, velocity and acceleration
- Deployed a website at [visionmotion.tech](http://visionmotion.tech) and launched the app on Google Play Store with **130 total installs**

**Talk 2 Control** | Web Application | Dec. 2017

- Developed a full stack system that allowed presenters to control presentations with their **voice**
- Created a web interface that **listens for keywords** to alert a **Python** script to press space on the user's computer
- Led a team of four to become the **1<sup>st</sup> Place** winner at Local Hack Day at Shopify Toronto

## Awards & Achievements

2018 **28<sup>th</sup> in the World** | Sir Isaac Newton Physics Exam

2018 **Honour Roll** | Canadian Computing Competition Senior (University of Waterloo CEMC)

2018 **1<sup>st</sup> Place in School, and Honour Roll** | Fermat Math Contest (CEMC)

2016 **1<sup>st</sup> Place Provincial Winner** | Business Services Operations Research Category (DECA Ontario)