

# Tianyu Guo

1B Mechatronics Engineering at University of Waterloo  
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## Employment History

*Hardware Developer*

2014-present

Neurovative Technologies Inc., Waterloo, ON

Currently developing Vibrant - a wearable hardware and programmable therapeutic vibration system. Also assisting with the Vibrant Android app which will cooperate with the hardware.

*Junior Software Developer*

2014

Symanta Inc., Waterloo, ON

Developed the BrainGesture gaming system, which allows users to use their brainwaves to control their movement in virtual reality games played on the virtual reality headset.

*Lab assistant*

2013

University of Waterloo, Waterloo, ON

Co-oped for a professor of computer engineering, helping to improve the Lab Manual for ECE 351 - Compilers, and ensuring clear structure for the programming assignment.

## Other Relevant experience

- Created and hosted the first student-run Arduino Workshop in University of Waterloo
- Project Lead at University of Waterloo's Biomechatronics Club
- Computer Technician at Kitchener Working Centre
- Technician at speeches of perimeter institute
- Program Designer and Instructor at YMCA's Robotics Summer Camp
- Founded and co-organized University of Waterloo's Engineer Society's Inaugural Arduino Workshop
- Co-founder of Waterloo Collegiate Institute Robotics Club, and Waterloo Collegiate Institute Robotics Team

## Awards & Achievements

- 2015 - President's Award - University of Waterloo for having gone above and beyond in contributing to society
- 2015- International Autonomous Robot Racing Competition- The award for achieving Second place Overall
- 2015 - Gold Medal – Waterloo Wellington Science and Engineering Fair
- 2014- Certificate of Distinction - Euclid Mathematics Contest
- 2014- Certificate of Distinction - Canadian Senior Mathematics Contest
- 2014- Tech award - For getting the highest grade in Grade12 Computer Engineering course in Waterloo Collegiate Institute

## Projects

- Smartphone-controlled real life Angry Birds gaming machine
- Thought-controlled virtual reality gaming system
- Brainwave determined concentration improvement system including an android app that generates the graph
- Smartphone-controlled smart pillow for sleep tracking and modifying
- Smart Seatpad for balancing stand-up time and seating time
- Myo EMG controlled robot arm (2015 April EngHack Hackthon at University of Waterloo)
- Android anonymous caller display app (2015 August Techretreat Hackthon at University of Waterloo)
- NXscannerT textbook/note scanner (2015 November EngHack Hackthon at University of Waterloo)
- Personal website. Html, JavaScript, CSS, Bootstrap.

## Education

- Candidate for Bachelor of Applied Science, Mechatronics Engineering University of Waterloo, Waterloo, ON Sep/2015 – Present
  - Relative courses: Mechatronics Engineering Concepts, Digital Computing, Calculus
- Ontario Secondary School Diploma, Honors, Waterloo Collegiate Institute, Waterloo, ON, Jun/2015
  - Relative Courses: Computer Science, Computer Engineering, Engineering design, Business Leadership

## Certifications

- Workplace Hazardous Materials Information System (WHIMIS) – Sep/2015
- CompTIA A+ Certification for computer hardware – June 2013