# Tom Zhu

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## SKILLS

**Languages**: Java, C++, Visual Basic, Scheme (Racket)

**Tools & Technologies**: Git, Bash, IBM Watson, OpenCV, Twilio, Sphinx

## PROJECTS

### WATSecure
*github.com/tomzyzhu/Home-Security-Identifier-Java*

- Worked in a team of 4 at Hack the North to create an **IBM Watson** object recognition AI app intended to send text messages of who is captured on camera upon activation of a doorbell or motion sensor
- Integrated **OpenCV** webcam compatibility to send live image captures to IBM cloud
- Incorporated **Twilio API** to send text messages from image recognition algorithm's JSON output

### Laptop Advisor
*github.com/tomzyzhu/Laptop-Advisor*

- Created a **Java** application with 2 classmates that gathers user data and provides laptop recommendations
- Utilized Java Swing API to design 3 graphical user frames and a menu bar to navigate the program
- Implemented a weighted decision matrix to determine the laptop preference of the user

### Crazy Eights
*github.com/tomzyzhu/crazy-eights-vb6.0*

- Developed a **Visual Basic** application that allows a user to play the card game Crazy Eights with the CPU

## AWARDS & ACHIEVEMENTS

### Canadian Computing Competition
Feb 2018

*School Champion Medalist, Certificate of Distinction*

- Solved challenging programming problems with advanced algorithms and data structures in Java
- Placed in the **94th percentile** out of over 1,000 contestants world-wide

### Euclid Mathematics Competition
Apr 2018

*School Champion Medalist, Certificate of Distinction*

- Placed in the **98th percentile** out of over 18,000 contestants world-wide

## EXTRACURRICULARS

### Bur Oak Secondary Computer Science Club
Sept 2017- June 2018

*Co-President*

- Designed and presented personalized curriculum to around 40 students covering commonly used data structures algorithms in preparation for the Canadian Computing Competition for 4 months
- Arranged and collaborated in running a Sphero Maze competition during Hour of Code which introduced 60 new individuals to programming over the span of 1 week
- Improved public computer assistant by adding new commands such as querying the weather and bus schedule from live websites to the assistant dictionary using **Java Sphinx API**

## EDUCATION

### University of Waterloo
Sept 2018 - Present

*Candidate for Honours Bachelor in Computer Science*
86% Average, 3.72 GPA