

# KAI YI (DAVID) ZHANG

@ ky5zhang@edu.uwaterloo.ca

+1 289-834-1082

## EXPERIENCE

### Computer Programmer

#### Agriculture and Agri-food Canada

May 2019 – August 2019

Harlow, ON, Canada

- Maintained EasyGrapher DSSAT used by the DSSAT Team
- Updated and implemented new statistical tools for EasyGrapher DNDC
- Published the newest version of EasyGrapher DSSAT to the DSSAT team
- Developed new installation procedures for future employees
- Created various maps analyzing agriculture data using ArcGIS

### Vex Robotics Team Leader

#### Appleby College

November 2015 – March 2018

Oakville, ON, Canada

- Built a robot that completed various different tasks
- Co-developed the code used to control the robot using ROBOTC
- Lead a group of young students and built the robot

## PROJECTS

### Biquadris (C++ Game Development)

#### University of Waterloo

November 2019

- Collaborated in a team of 3 to developed a turn based Tetris-like game
- Designed important program structures to improve flexibility of the game board and improved the overall efficiency of the game
- Implemented the main body of the game by writing core classes and combining code from other team members

### A\* Simulation (Java Application)

#### Personal Project

November 2016 – April 2017

- Self-taught the A\* path-finding algorithm and the required Java GUI knowledge
- Implemented the A\* algorithm by making helper classes and designing a pseudo-code implementation
- Created an application that visually demonstrated the A\* algorithm using Java's Swing toolkit

### Website Design

#### Personal Project

May 2017 – August 2017

- Learned HTML and CSS by taking courses on Udemy and General Assembly
- Created a website using HTML and CSS by applying the knowledge from the online courses
- The website (yijimima.com) was previously hosted on HostGator, snapshots of the website can be found on the WayBack Machine
- Gained experience working with HTML, CSS and website hosting

## PROFESSIONAL SKILLS

- Proficient in:

C++

C

Windows OS

Visual Basic

Scheme

Java

- Familiar with:

HTML 5

CSS

Linux

Bash

MIPS

ARM

Visual Studio

LaTeX

- Basic Knowledge in:

Python

Git

R

JavaScript

## SOFTSKILLS

Adaptability

Work Under Pressure

Team Work

Time Management

Organization

Communication

Responsibility

Fast Learner

## EDUCATION

### Candidate for Bachelor of Computer Science

#### University of Waterloo

September 2018 – April 2023

Relevant Courses:

- Designing Function Programs (Racket)
- Elementary Algorithm Design and Data Abstraction (C)
- Object-Oriented Software Development (C++)
- Data Structures and Data Management
- Foundation of Sequential Programs

## LEADERSHIP

### Lifeguard/Swimming Instructor

#### YMCA Oakville

September 2016 – April 2017

- Insured pool safety by working in a team
- Designed lesson for young swimmer to learn