KAI YI (DAVID) ZHANG

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⌂ github.com/KaiYi-David-Zhang 🎓 3A Computer Science

EXPERIENCE

Computer Programmer
Agriculture and Agri-food Canada

📅 May 2019 – August 2019   📍 Harrow, ON, Canada

- Maintained EasyGrapher, a graphing software that aids with visualizing crop growth data
- Developed a new installation procedure to produce an installer for clients instead of relying on external add-ons
- Implemented functions that calculates important statistics from crop growth data provided by agricultural models to complement the graphs
- Created an application that summarizes test results from automated tests into an easy to understand excel file
- **Tools:** Visual Basic, Excel, ArcGIS

Vex Robotics Team Leader
Appleby College

📅 November 2015 – March 2018   📍 Oakville, ON, Canada

- Built a robot that completed various tasks such as moving a ball to an assigned target and placing a ball on a shelf
- Co-developed the code used to control various motors on the robot
- Led a group of young students and built the robot
- **Tools:** ROBOTC, VEX Robotics Kit

PROJECTS

WLP4 Compiler
University of Waterloo

📅 January 2020 - April 2020

- Implemented a compiler to compile all valid WLP4 code (a teaching language from Waterloo) into MIPS machine language
- Designed programs to scan WLP4 code into tokens, parse the tokens and ultimately generate the MIPS machine language
- **Tools:** C++

Polygon Smash
Personal Project

📅 June 2020 – August 2020

- Created a Super Smash Bros inspired fighting game using the Unity game engine
- Created sprites for character animation, and implemented the main hit-box and hurt-box logic
- Developed the camera logic to appropriately track all players during gameplay
- **Tools:** Unity, C#

Personal Website
Personal Project

📅 May 2020 – present

- Created a website to advertise and display my projects
- The website source code was designed to easily add new items as I update the website when I complete more projects and learn new skills
- **Tools:** HTML 5 and CSS, Bootstrap 4, JavaScript

PROFESSIONAL SKILLS

– Proficient in:

`C++` `C` `Java` `Visual Basic`

– Familiar with:

`C#` `HTML 5` `CSS` `Linux` `Bash` `Git` `Unity` `Bootstrap 4` `MIPS` `ARM` `Visual Studio` `LaTeX`

– Basic Knowledge in:

`Python` `SQL` `JavaScript` `R`

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 (C++)
- Operating Systems (C)
- Algorithms

INTERESTS

`Video Game Design` `Game Theory` `Swimming` `Team Sports` `Music` `Public Speaking`

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