

# KAI YI (DAVID) ZHANG

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3B Computer Science

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## EXPERIENCE

### Software Developer

#### Vital Images

January 2021 - April 2021 Waterloo, ON, Canada

- Quickly adapted to the Agile development at Vital Images
- Worked on Vitrea® Connections, a medical imaging connection software that helps radiologists access patient data efficiently
- Implemented the ability to remove user data from Vitrea® Connections' database when requested by the user
- Developed fixes to improve storage efficiency by avoiding unnecessary calls to costly backend procedures
- Fixed synchronization issues between frontend and backend
- Fixed image duplication issues to free up backend storage space
- **Tools:** Agile, Java, Python, TypeScript, JavaScript, NoSQL

### Computer Programmer

#### Agriculture and Agri-food Canada

May 2019 – August 2019 Harrow, ON, Canada

- Maintained EasyGrapher, a software that aids with visualizing crop data
- Developed a new installation procedure for EasyGrapher
- 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

## 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 (Unity Game)

#### Personal Project

June 2020 – August 2020

- Created a Super Smash Bros inspired fighting game using Unity
- 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#

## HIGHLIGHTS

- 3A Computer Science at the University of Waterloo
- Experienced in: **C++, C, Java, Visual Basic, Git**
- Familiar with: **C#, HTML, CSS, Bootstrap 4, Unity, SQL, NoSQL, Python, Bash**
- Experienced in working with large-scale software development
- Capable of quickly adapting into new development environment
- Fast learner, good communicator and a great teammate

## EDUCATION

### Candidate for Bachelor of Computer Science

#### University of Waterloo

September 2018 – April 2023

#### Relevant Courses:

- Introduction to Database Management (SQL)
- 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)
- User Interfaces (Java)

## 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