

# ZIYUE YANG

COMPUTER SCIENCE AND STATISTICS

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## TECHNICAL SKILLS

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**Programming** Python, Java, C++, JavaScript, SQLite, Swift, Ruby, XML  
**ML Tools** Jupyter Notebook, AWS, PyTorch, Keras  
**Web** Django, Rails, React  
**Mobile Dev** Android Studio, Xcode

## EXPERIENCE

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### MarkUs Project

Software Developer Intern, Volunteer

Toronto, ON (June 2020 - Present)

- Contributing to the fullstack development and maintenance of MarkUs, a Rail-based web platform used to collect and grade student work. My responsibilities include
  - Implementing and testing new features in various software listed above.
  - Fixing bugs.
  - Improving testing and documentation.

### Bigtheta

Project Leader (Remote)

Toronto, ON (May 2020 - Present)

- Leads a team of entry-level student programmers to create Django-based project.
- Introduces software development tools and principles (e.g. git, UML, SOLID) in a lecture-like style.
- Demonstrates front-end and back-end developing, with some use of database.

### Cohesion

iOS Developer, Internship

Guangzhou, Guangdong, China (Summer 2018)

- Contributed to the Swift development of Cohesion App, an iOS office reservation tool.
- Implemented web features using JavaScript.
- Front-end testing with various browsers.

## PROJECTS

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### Console FPV Navigator

(June 2020)

- A command-line based first-person 3D navigator, written in C++.
- Used a ray casting algorithm to map from 2D space to 3D for rendering.
- Inspired by the engine of game *Wolfenstein 3D*.

### UniMart

(May 2020 - June 2020)

- Implemented user models, item views, and trade models in Django to allow C2C trading.
- Styled front-end templates with the Bootstrap framework.
- Stored and managed data with PostgreSQL.
- Deployed application using Heroku.

### Agenda

(April 2020)

- Integrated Android GUI with various features (e.g. auto-filling while searching calendar events by name).
- Implemented features that allow users to modify repeating events, as well as operations on user-selected events.
- Queried app data using SQLite.

## EDUCATION

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### University of Toronto

Toronto, ON (2018-2022 (Expected))

- Honours Bachelor of Science
- Computer Science and Statistics, Minor in Mathematics
- Machine Learning Focus

## SELECTED CURRICULA

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### **Computer Science**

Software Design, Data Structures, Convolutional Neural Networks, UNIX Programming, Theory of Computation.

### **Statistics**

Methods for Machine Learning, Methods of Data Analysis, Probability.

### **Mathematics**

Linear Algebra, Real Analysis, Multivariable Calculus.