

# ZIHAO ZHANG

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<https://zihao.me> 

## WORK EXPERIENCE

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SEPT 2017 – DEC 2017

### Google LLC | Software Engineering Intern

- Created a distributed data analyzer for Google's petabyte scale database within Ads Quality team
- Implemented advanced optimization techniques that achieved 12% saving in server side CPU usages

JAN 2017 – APR 2017

### Yelp Inc | Data Mining Engineering Intern

- Implemented a new targeted food search experience with improved ranking and scoring model
- Applied A/B testing on different search models and analyzed metrics with Jupyter Notebook

MAY 2016 – AUG 2016

### Yahoo! Inc. | Software Engineering Intern

- Launched state of the art message routing system written in Node.js at Yahoo scale
- Worked on intelligent assistants utilizing machine learning and natural language understanding

AUG 2015 – DEC 2015

### Square, Inc. | Software Engineering Intern

- Designed and implemented the logistics system that handled millions of Square credit card readers
- Launched a new client onboarding page worldwide built with Ruby on Rails framework
- Created new features and APIs for Square's online hardware shop using Ember.js

## PROJECTS

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### Portfolio & Blog [zihao.me](https://zihao.me) ([github](#))

- Built with Hugo, React, WebGL, WebSocket, Node.js, Kubernetes, Docker, Elixir and Phoenix

### DeepWings AI ([github](#))

- OpenAI environment for a Space Invaders style game with deep convolutional reinforcement learning agent

### PythonCraft ([github](#))

- 3D Minecraft clone written in Python with custom high performance C++ rendering engine

## EDUCATION

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2014 - PRESENT

### University of Waterloo

- Bachelor of Computer Science
- GPA **3.52**, Major GPA **3.85**

2011 - 2014

### Vincent Massey Secondary School

- Distinguished Honor Roll

## AWARDS

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### International Olympiad in Informatics

- Bronze medal in one of the most prestigious algorithmic competitions

### Canadian Computing Olympiad

- Top 4 in the national invitational programming competition

### Michael Egan Scholarship

- Awarded to outstanding students entering computer science program

## TECHNICAL SKILLS

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### ADVANCED

- C/C++, JavaScript, Python, Java, Ruby, Linux, Machine Learning, LaTeX, 3D Graphics, SQL

### INTERMEDIATE

- C#, Elixir, Scheme, PHP, Assembly, Swift, Objective-C, Shell

## INTERESTS

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- Cyber Security, Capture the Flag, Reverse Engineering
- Cryptographic Currency, Blockchain
- Artificial Intelligence, Computational Neuroscience
- Theoretical Physics, Cosmology, Quantum Mechanics
- Running, Cycling, eSports