

ZIHAO ZHANG

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WORK EXPERIENCE

Bebo Inc | Machine Learning Engineer

Sept 2018 – Present

- Developed a real-time video ingestion and deep learning based object detection system with RTMP, TensorFlow, PyTorch and GStreamer
- Created an automated training pipeline from labelling interface to parameter search and model deployment

Embark Trucks | Self Driving Engineering Intern

May 2018 – August 2018

- Deployed and managed a production grade Kubernetes cluster with auto-scaling capability
- Implemented real-time vehicle tracking in ROS and built a react based live monitoring dashboard
- Bootstrapped an Apache Spark cluster and migrated the Python based ETL pipeline to Spark

Google LLC | Software Engineering Intern

Sept 2017 – Dec 2017

- Created a distributed data analyzer for a petabyte scale database within the Ads Quality team
- Implemented optimization techniques that achieved 12% saving in server side CPU usages
- Worked with SSTable, MapReduce and Flume C++

Yelp Inc | Data Mining Engineering Intern

Jan 2017 – Apr 2017

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

Yahoo! Inc | Infrastructure Engineering Intern

May 2016 – Aug 2016

- Launched the backend system for Yahoo chat bots

Square Inc | Full Stack Engineering Intern

May 2016 – Aug 2016

- Implemented the logistics backend that handled the shipment of over one million credit card readers

EDUCATION

University of Waterloo

2014 - 2019

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

AWARDS

26th International Olympiad in Informatics (IOI 2014)

- Bronze Medal representing Canada

Michael Egan Scholarship

- Awarded to outstanding students in computer science program

TECHNICAL SKILLS

- C/C++, Python, Machine Learning, Deep Learning, TensorFlow, PyTorch, Distributed Computing, Big Data, Spark, Kubernetes, Java, JavaScript, Ruby, 3D Graphics, SQL

PROJECTS

Portfolio & Blog zihao.me

- Interactive 3D website built with Hugo, React, WebGL, WebSocket, NodeJS, Kubernetes and Docker

BlitzCrypto [website](#)

- Co-founded a start-up using chat bots to automate community management

DeepWings AI [github](#)

- OpenAI gym environment for a Space Invaders style game and a deep reinforcement learning based agent

PythonCraft [github](#)

- Minecraft like 3D game written in Python with a custom high performance C++ rendering engine