



# JACKIE ZHANG

I LOVE MAKING COOL  
STUFF

## CONTACT

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" He's a splendid chap ! "

## PROFILE

I am an undergraduate Computer Science student with over 4 years of programming and entrepreneurship experience.

My engineering skillset consists of mobile and web development, database design and software system architect.

My current academic/research interest lies within **Large Scale System Design, Computer Networking/SDN and Artificial Intelligence.**

I love learning about new technologies and I am extremely passionate about what I do.

## WORK EXPERIENCE

### EECS 388 (COMPUTER SECURITY) IA AT U OF MICHIGAN ACADEMIC ROLE | SEPT 2018 - NOW

- Preparing materials for and teaching weekly discussion sections.
- Grading student homework & giving course feedback.
- Improving the robustness of course materials.
- Crafting fun hacking projects for students to work on.

### CTO AT BACKYARDPARKING.COM (NOW PARQYT.COM) SAAS STARTUP | FEB 2017 - MAR 2018

- Substantiated acquisition of the company.
- Founded and administered the dev team to create the company's web application and backend infrastructure with CrowdSourcing integration using Python, Firebase and Amazon Mechanical Turk.
- Directed and contributed in daily business and proposal of the future development of the company.

### SOFTWARE ENGINEER INTERN AT BEYOND REMARKABLE LLC CONSULTING AGENCY | JULY 2017 - JULY 2018

- Engineered a distributed web backend system for the company's instant messaging application supporting multiple geographical regions using NodeJS, MongoDB cluster, Redis cluster and Amazon S3/Aliyun OSS.
- Collaborated with the mobile front-end developers to integrate required features and improve user experience.

### PRODUCT MANAGER INTERN AT SOFFEE DESIGN INC HOMEWARE E-COMM PLATFORM | APR 2017 - NOV 2017

- Recruited and mentored a team of 4 professional web developers.
- Built and launched an all-in-one transportation, inventory and sales management web system for the company using PHP Laravel, VueJS, MySQL and Qiniu CDN.
- Initiated and fostered a SCRUM based development workflow for the tech team to enable consistent productivity even after I left.

### FOUNDER OF REACTIVE XYZ

WEB & MOBILE DEV COMPANY | AUG 2015 - NOW

- Coordinated daily business transactions and client relationship.
- Led software development for most of the freelancing projects using Wordpress.

### SOFTWARE ENGINEER INTERN AT CRYTEK

GAME & GAME ENGINE COMPANY | JULY 2015 - AUG 2016

- Analysed competitors' game strategies and generated reports to supervisor.
- Helped develop CryEngine in workshops, specialising in generating API documentations and unit tests.

## RESEARCH & DEV EXPERIENCE

### DATABASE RESEARCH GROUP AT U OF MICHIGAN DB LAB | MAR 2018 - NOW

- Building a next-generation travel planning engine.
- Designing and implementing a web interface and API connectors to allow end user to operate the engine.
- Leading the frontend dev team and revamped the entire frontend codebase to increase usability and efficiency.

## SECURE CLOUD MANUFACTURING AT U OF MICHIGAN

MECHANICAL ENGINEERING LAB | DEC 2017 - NOW

- Researching and crafting an anomaly detection system using Software Defined Control (SDC) and Machine Learning.
- Implemented an local area network intrusion detection tool for Common Industrial Protocol using real time packet analysis.
- Adapting methods for hierarchical defence of network attacks based of the HAMIDS intrusion detection system.

## GEMS LAB AT U OF MICHIGAN

GRAPH MINING & AI LAB | APR 2017 - APR 2018

- Formalised a comprehensive graph mining web application for large-scale data visualisation using WebGL with an automated data processing pipeline using Apache Spark & Hadoop.
- Co-authored a paper illustrating the data processing pipeline described above.
- Analysed email network data sets sponsored by commercial companies to generate influence factors in social network.

## FREE SPEECH TECHNOLOGY AT U OF MICHIGAN

NETWORK & COMMUNICATION SECURITY LAB | NOV 2016 - DEC 2017

- Led the development of the mobile application.
- Devised and conducted research on network infrastructure and security protocols.
- Explored the implication of power consumption for mobile adhoc P2P communication to evaluate feasibility of common usage.



## GROWTH

### ARTIFICIAL INTELLIGENCE

SPECIALIZING IN COMPUTER VISION

- Completed the 10-months Udacity AI Nanodegree.
- Programmed game agents using search with Alpha-beta pruning, ASL recognizer using Hidden Markov Model, Cargo Transportation Agent using Planning Graph and more.
- Programmed face detector using Haar Cascade, dog classifier using CNN, natural language generator using RNN & LSTM.



## EDUCATION

**BACHELOR OF SCIENCE (GPA 3.76)**

**MAJOR: COMPUTER SCIENCE & DATA SCIENCE**

@ UNIVERSITY OF MICHIGAN | 2016 - 2020

**VCE, AUSTRALIA**

**ATAR 99.25 (TOP 0.75% NATIONALLY)**

@ UNIVERSITY HIGH SCHOOL | 2012 - 2016



## SKILLS

PHP (Proficient), iOS(Proficient), Javascript/TypeScript/Node (Proficient), HTML/CSS(Proficient), Python (Proficient), Database (SQL/NoSQL) (Proficient), Go (Familiar), C++ (Familiar), Java/C# (Familiar), Linux (Familiar), AI/Deep Learning (Beginner)



## CERTIFICATIONS & AWARDS

**UDEMY**  
**WEB DEVELOPER**  
NOV 2015

**UDACITY**  
**NANO DEGREE (AI)**  
AUGUST 2017

**AUSTRALIA**  
**INFORMATION OLYMPIAD**  
**(BRONZE)**  
NOV 2015

**EDUMOBILE**  
**IOS DEVELOPER**  
NOV 2014

**EDX/COURSERA**  
**MACHINE LEARNING**  
JUNE 2016

**EECS 183 FINAL PROJECT**  
**GRAND FINAL PRIZE (1ST PLACE)**  
NOV 2016

## OTHER STUFF

Besides technology, I am a casual music post-producer who is not quite good at any particular instruments. I also enjoy reading about politics, astrology, pathology and entrepreneurship when I want to take some time away from the computer :)



# China

Primary - Secondary  
School



# Australia

High School  
VCE



# US

University Of Michigan

B.S. 2020

Computer Science  
Data Science