

# **Zack Zhao**

Sunnyvale, CA, 94085, Tel: (347)288-1745, Email: zz87022n@pace.edu  
Portfolio: fyfyzk.github.io, LinkedIn: www.linkedin.com/in/zack-z-zhao-b9404134

---

## **SUMMARY OF QUALIFICATION**

- Experienced software engineer seeking full-time opportunity
- Enthusiastic about making perfect product
- Passionate about tackling coding challenges

## **TECHNOLOGY SKILLS**

Language: C, JavaScript, Python, C++, HTML, CSS  
Database: MongoDB, MySQL

## **RELATED WORK EXPERIENCE**

**Software Engineer, Tax1on1 Inc, Sunnyvale, CA    Mar, 2017   Present**

Developed WeChat chatbot and maintained Q&A website, increased monthly average visitors by 21% in total

- Developed WeChat chatbot that is able to answer text and audio questions and supports WeChat event messages
  - Designed and implemented chatbot auto-search and email forwarding on back-end, improved front end pages, designed and developed frequently asked questions page
  - Improved Q&A website front end user interface and implemented WeChat Login module
- Skills: Node.js, JavaScript, MongoDB, MySQL, RESTful API, JSON, HTML, CSS, AWS

**Graduate Assistant, Robotic Lab, Pace University, NY    May, 2016   Dec, 2016**

Worked on object detection sub-systems in a robotic car project

- Implemented an image difference detection module using cascade classifiers, feature detectors
- Applied CUDA to improve efficiency of detection in massive moving objects by 17%

Skills: C++, OpenCV, CUDA Parallel Programming, Linux, Git

**Software Engineer&Project Leader, Unionman Technology Co, China    Sep, 2010   Jun, 2013**

Refactored, redesigned, implemented multiple application software projects on TV set-top box (Linux ARM embedded software platform)

- Contributed to refactor of user interface, fixed architectural defects, improved its reliability
- Collaborated with teammates to redesign the advertisement module, enhanced module's maintainability and reduced development cycle time by 30%
- Led team of six on Heilongjiang TV project, optimized key valuation parameters, helped generated one million orders, and became largest set-top box provider that year

Skills: C, MVC, Object Oriented Design, DVB-C protocol, Multithreading, XML, Linux, SVN

## **PROJECTS**

**Collaborative Online Judge System**

- Developed a web-based collaborative code editor supports multiple user editing simultaneously
- Designed and developed a single-page web application for coding problems
- Built a user-code executor service which can build and execute user's code
- Refactored and Improved system throughput by decoupling services using RESTful API and load balancing by Nginx

Skills: JavaScript, Python, Angular, Node.js, Express, Redis, MongoDB, RESTful API, Nginx, Linux, VirtualBox, Git, Atom, Apache Bench, AWS, Linux, Git

**Distributed Tiny Url Web Application**

- Design and developed a Rest API server using MEAN stack
- Persisted application data using MongoDB, used Redis as cache to improve performance
- Employed Nginx HTTP server with a load balancer and proxy server to handle thousands of RPS
- Dockerized the server and scaled up the server into multiple instances

Skills: JavaScript, AJAX, Node.js, Express.js, Angular.js, MongoDB, Docker, Nginx, Redis, Linux

## **EDUCATION**

Pace University, Computer Science master's degree, GPA 3.97

Graduated on December 2016

Guangxi University, Bachelor of Science

Graduated on July 2008