

# Zili Xiang

zx77@cornell.edu | 607.882.0196  
618 Stewart Ave. Apt. H, Ithaca, NY 14850

## EDUCATION

### CORNELL UNIVERSITY

**MPS IN INFORMATION SCIENCE**  
Expected May 2017 | Ithaca, NY  
Cum. GPA: 3.60 / 4.0

### BS IN LANDSCAPE ARCHITECTURE

Jan. 2014 - May 2016 | Ithaca, NY  
Conc. in Computer Science  
College of Agriculture and Life  
Science  
Dean's List (2015 Fall)  
Cum. GPA: 3.50 / 4.0

### SHANGHAI JIAO TONG UNIVERSITY

Sep. 2011 - Dec. 2013  
Shanghai, China

## RELEVANT

## COURSEWORK

Operating System  
Database System  
Machine Learning  
Computer Graphics + Prac  
Artificial Intelligence  
Natural Language Processing  
Data Structure  
Web Development (as TA)  
Discrete Structure

## RELEVANT SKILLS

Java • Hadoop MapReduce  
J2EE • Spring • Maven  
OpenGL (GLSL and  
WebGL) • C/C++ • Swift  
PHP • CSS • HTML  
MySQL • MongoDB  
Python • Spark • word2vec  
Numpy • Scipy  
JavaScript • jQuery  
React • Redux • react-d3  
Node.js • Express • ejs  
IBM Watson

## LINKS

Github:// [zxiang77](#)  
LinkedIn:// [zili-xiang](#)  
Kaggle:// [zxiang77](#)  
Blog:// [zilixiang.me](#)

## RELEVANT EXPERIENCE

### COMPUTER GRAPHICS + PRACTICUM Jan. 2017 - May 2017 | Ithaca, NY

- Visualized historical development data of all countries with WebGL (it's now on [my personal website](#))
- Reduced running time complexity of ray tracing from  $O(n^2)$  to  $O(n \log n)$  with KD tree.
- Implemented frame buffer and skybox in Maze Crawler

### BREAKTHROUGH April 2017 - June | Ithaca, NY

- Implemented a chatbot web app with IBM Watson to help high school students with disability locate their career path
- Designed and implemented a matching scoring algorithm
- Awarded as the Best Innovative Project on TOM-NYC Software Challenge

### MOBILE WEATHER DECISION TOOL Jan. 2017 - May 2017 | Ithaca, NY

- Developed a mobile irrigation decision assistant with React.js
- Implemented Redux as state container
- Processed and displayed HDF5 data with python

### MACHINE LEARNING PROJECTS July 2016 - May. 2017 | Ithaca, NY

- Implemented Naive Bayes Classifier for name classification with an accuracy of 85%
- Trained linear regression model from Million Song Database with Spark
- Implemented random forest for CART tree and reduced testing error from 23% to 7%
- Implemented CNN with TensorFlow for digit classification and reached 98% accuracy

### AMBIGUITY PHRASE DETECTION (NLP) Aug. 2016 - Dec. 2016 | Ithaca, NY

- Implemented HMM and CRF and reinforced CRF model with deep learning based package word2vec.
- The best result reached 39% of accuracy and ranked top 10% in Kaggle competition.

### DATABASE PROJECTS Aug. 2016 - Dec. 2016 | Ithaca, NY

- Built B+ tree and tested the program with JUnit
- Implemented k-mean algorithm using Hadoop framework on local machine

### OPERATING SYSTEM PROJECTS Aug. 2016 - Dec. 2016 | Ithaca, NY

- Built a tiny bash, which maintains and controls foreground and background jobs
- Developed network connection with C socket interface
- Implemented a message sending interface among nodes with link-state routing protocol

## ADDITIONAL EXPERIENCE

### TEACHING ASSISTANT | INTERMEDIATE WEB PROGRAMMING

Jan. 2017 - May 2017 | Ithaca, NY

- Held weekly office hours helping with debugging JavaScript, PHP and SQL
- Prepared weekly discussion and taught back-end technologies (SQL, PHP, phpMyAdmin, JavaScript, jQuery, Ajax and HTML)

### RESEARCH ASSISTANT | SOCIAL DYNAMICS LAB

July 2016 - Sep. 2016 | Ithaca, NY

- Detected burst point of significant social or political events by monitoring data streaming from Twitter
- Developed tools to monitor Twitter stream and built ngram model based on stream data with mongoDB