

Zili Xiang

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EDUCATION

CORNELL UNIVERSITY

MPS IN INFORMATION SCIENCE
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

LINKS

Github:// [zx77](#)
LinkedIn:// [zili-xiang](#)
Kaggle:// [zx77](#)
Website:// [zilixiang.me](#)

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++ • PHP • CSS • HTML
MySQL • MongoDB
Python • Spark • word2vec
Numpy • Scipy
JavaScript • jQuery
React • Redux • react-d3
Node.js • Express • ej
IBM Watson

RELEVANT EXPERIENCE

MINI TWITTER API Spring Boot, h2, Java EE, Groovy

June 2017 - July 2017 | Ithaca, NY
• Implemented Spring Security to manage the access to different part of the API
• Linked API to h2 database interface with named parameter JdbcTemplate

IRRIGATION DECISION WEB APPLICATION React.js, Redux, Node.js

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

COMPUTER GRAPHICS + PRACTICUM OpenGL(GLSL, WebGL) and Java

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 data structure.
• Implemented frame buffer and skybox for Maze Crawler animation rendering

BREAKTHROUGH Node.js, JavaScript, Python, IBM Watson

April 2017 - April 2017 | 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

MACHINE LEARNING PROJECTS Python, Spark, Numpy

July 2016 - May. 2017 | Ithaca, NY
• 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 k-mean algorithm using Hadoop framework on local machine

AMBIGUITY PHRASE DETECTION (NLP) Python, NLTK, Numpy, word2vec

Aug. 2016 - Dec. 2016 | Ithaca, NY
• Implemented HMM, CRF and deep learning based package to detect ambiguity phrase.
• The best result reached 39% of accuracy and ranked top 10% in Kaggle competition.

OPERATING SYSTEM PROJECTS C/C++, Python

Aug. 2016 - Dec. 2016 | Ithaca, NY
• Built concurrent programs with mutex, semaphore and condition variables
• Developed messaging network connection with C TCP socket interface

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
• Developed tools to monitor Twitter stream and built ngram model based on stream data with mongoDB
• Implemented and optimized bidirectional BFS for social networks to find shortest paths between users in CPython
• Implemented Yen's k shortest path algorithm to test the robustness of connections on social networks