

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

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](#)
Website:// [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

MINI TWITTER API June 2017 - July | Ithaca, NY

- Used Spring Boot as framework and Groovy to manage dependencies
- Implemented Spring Security to secure the access to different part of the API
- Linked API to h2 database interface with named parameter JdbcTemplate

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

- 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) 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 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
- Implemented and optimized bidirectional BFS for social networks to find shortest paths between users in CPython