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**

RELAVANT 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