# BINGYU WANG

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### Education

Northeastern University

Boston, MA

Candidate for a Master of Science in Computer Science, GPA: 3.76/4.00

Dec 2014

Core Courses: Algorithm · Machine Learning · Data Mining · Parallel Data Processing in MapReduce

 $\cdot$  Computer Systems  $\cdot$  Computer Networks  $\cdot$  Programming Design Paradigm

Honors and Activities: Teaching Assistant for Machine Learning class (2013 -2014)

20th ACM SIGKDD Conference (New York City, Aug 2014)

Big Data Technology Conference (Boston, April 2014)

Northwestern University

Xi'an, China

Bachelor of Engineering in Software Engineering, GPA: 3.30/4.00

June 2012

Core Courses: Object Oriental Technique & C++, Java Program Designing · Algorithm Data Structure · Web Design and Technology · Database System · Linear Algebra · Probability Theory

Honors and Activities: University First Scholarship & Excellent Student Award (2010 - 2011)

· 1st Prize in Professional Computer Knowledge Competition (2010).

### **Publications**

"Topic-Factorized Ideal Point Estimation Model for Legislative Voting Network"

ACM SIGKDD 2014

## Professional Experience

### MassMutual Financial Group, Boston, MA

Jan-June 2014

Data Analyst (Python)

- Recognized the pattern and performed analysis and predictions on the web log data of Oppenheimer Website using the Aster Express Tool from Teradata
- Analyzed the MassMutual HR data and produced the predictions on the Quality of Hire
- Performed twitter analysis for GeoAnalytics project to collect data from twitter using sentimental keywords and find out the areas where MassMutual can promote the sales

#### Federal Home Loan Bank, Boston, MA

June-Aug 2013

Information Technology Intern (Java)

- Developed a Test Automation Framework that can easily be used to test different web based projects using various technologies, such as Selenium, Open2Test and Eclipse
- Delivered documentations, including test script based on SharePoint, test results covering test suite execution and screenshot, and user manual for non-computer staff

## Software Engineering Laboratory, Northwestern Univ., Xi'an, China

Feb-Nov 2011

Student Data Analyst (MATLAB)

- Designed models of data warehouse, including concept, logic and physics models
- Eliminated redundant and obsolete data through applications of various algorithms
- Built prediction models from vast data source using data mining techniques

## Project Experience

### Research on Web Page Ranking: Based on Learning to Rank Algorithms

2013

- Implemented the RankBoost and Gradient Boosting Decision Tree Algorithms to perform the web page ranking task
- Improved the accuracy by building decision tree in heap structure and increased the running speed by simplifying the squared error formula and sorting the features
- Reduced the running time from several hours to almost half an hour on 1GB datasets

### Solving The Issue of Mazes: Shortest Path Based-on Genetic Algorithm, Capstone

2012

- Coded the front-end GUI for generating and configuring mazes using MFC in C++
- Studied and developed a new genetic algorithms (sub-optimal) to search for shortest path under various population size, length of gene, mutation rate and crossover rate
- Evaluated and assessed performance and attribute of the algorithm on various platforms

## Computer Knowledge

- Programming Languages (Proficiency): Java, Python, MATLAB
- Programming Languages (Familiar): C, C++, LaTex
- Operating Systems and Databases: UNIX-Like (Mac OS X, GNU/Linux), SQL Server 2000, SQLite
- Web and Mobile Development: D3.js, Android Development