

Zhengjie Miao

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EDUCATION

Duke University, Durham, NC, U.S.A

- Ph.D. in Computer Science

Aug 2017 – Present

Columbia University, New York, NY, U.S.A

- M.S. in Computer Science

Aug 2015 – Dec 2016

Peking University, Beijing, P.R. China

- B.S. in Computer Science and Technology
- B.A. in Economics

Sep 2011 – Jul 2015

Sep 2012 – Jul 2015

RESEARCH INTERESTS

Database, Data-intensive Systems, Interactive Data Exploration, Visual Analytics

PUBLICATIONS

Combining Design and Performance in a Data Visualization Management System

E. Wu, F. Psallidas, Z. Miao, H. Zhang, and L. Rettig,
in *Conference on Innovative Data Systems Research*, Jan 2017.

Story explorer: A visual analysis tool for heterogeneous text data

C. Wang, Z. Miao, S. Chen, Z. Liu, Z. Wang, Z. Wang, and X. Yuan
in *IEEE Conference on Visual Analytics Science and Technology (VAST)*, Nov 2014.

MovementFinder: A Multi-filter Visual Analytics Design for Movement Data Investigation

S. Chen, Z. Wang, Z. Liu, Z. Wang, C. Wang, Z. Miao, and X. Yuan
in *IEEE Conference on Visual Analytics Science and Technology (VAST)*, Nov 2014.

A Platform For Collaborative Visual Analysis on Streaming Tweets

Z. Liu, Z. Wang, S. Chen, Z. Wang, Z. Miao, and X. Yuan
in *IEEE Conference on Visual Analytics Science and Technology (VAST)*, Nov 2014.

RESEARCH EXPERIENCE

Database Research Group, Columbia University

Research Assistant, Advised by Prof. Eugene Wu

Sep 2015 – Dec 2016

- Data Visualization Management System
 - Built a predictive model for user mouse interactions on web-browsers and implemented a JavaScript library for the model
 - Developed experiments using a Chrome extension to collect user interaction data
 - Proposed a data streaming framework to improve the response time of client-server-based data visualizations, which supports prediction for user query intent and progressive data transmission

Visualization and Visual Analytics Group, Peking University

Research Assistant, Advised by Prof. Xiaoru Yuan

Apr 2014 – May 2015

- **Visual Analytics in Ancient Chinese Literature**
 - Researched topic on text visualization and collaborative sense making
 - Developed the platform for Visual Analytics in Ancient Chinese Literature using D3.js and Python
 - Designed and implemented the interface for annotating and viewing the storyline in the literature
- **Store Explorer: A visual analysis tool for heterogeneous text data**
 - Designed and implemented a flexible filter and visual analytics interface for text dataset
 - Built up the Story Explorer system for analyzing social network information and human behavior information

AWARDS & HONORS

- 7th Place in ACM/ICPC 2015 Greater New York Regional

Nov 2015

- Award for Excellent Detailed Analysis, VAST Challenge 2014 MC1 Nov 2014
- Award for Excellent Comprehensive Visual Analysis System, VAST Challenge 2014 MC2 Nov 2014
- Award for Excellent Collaborative Streaming Analysis, VAST Challenge 2014 MC3 Nov 2014
- The May Fourth Scholarship, Peking University May 2013
- Silver medal in ACM/ICPC 2012 Asia Regional Contest in Tianjin, Oct 2012
- First Prize in National Olympiad in Informatics in Hunan Province Nov 2009

**WORK
EXPERIENCE**

MUX Group, Yahoo Beijing R&D Center

Technical Intern Jul 2014 – Oct 2014

- Project: Mobile Catalogs
 - Optimized the algorithm for extracting mobile devices information and detecting user network environment
 - Implemented an algorithm for semi-automatically maintaining the index of mobile devices
 - Rebuilt the storage format of user information that reduced the storage space by 2/3

SKILLS

- Programming Languages
 - Proficient in C, C++, JAVA, Python, JavaScript, R, L^AT_EX, HTML, SQL
 - Familiar with Matlab, Scala, Scheme
- Frameworks
 - D3.js, Nodejs, Hadoop, SciKit-learn, Theano, OpenCV