



# MINGZHI (MATTHEW) ZENG

Master Candidate, Research Assistant at **Carnegie Mellon University**

## Experience

### VMware //Software Engineer Intern

May 2015 - Aug 2015

- Designed and developed full-stack framework for vRealize System Test Portal based on Django
- Implemented a light-weight metric collecting framework running on diversified resources based on Celery and Rabbitmq

### Carnegie Mellon University //Research Assistant

Aug 2014 - May 2015

- Developed set expansion and clustering algorithms to boost the TREE active learning system
- **Publication:** Interactive Learning with TREE: Teachable Relation and Event Extraction System

### Microsoft //SDET Intern

July 2013 - Oct 2013

- Reviewed test logs; fixed Billing failures in Microsoft Commerce Transaction Platform(CTP)
- Reviewed bugs; cooperated with the SDE team to verify related code check-in

### Nanjing University //Research Assistant

May 2012 - June 2013

- Designed and implemented a fully-functioning Java-based search engine platform that crawls and retrieves posts in personal social network.
- Reranked the results according to content relevance, user intimacy and interest similarity.

## Education

### Carnegie Mellon University

Dec 2015

*Master in Intelligent Information Systems, School of Computer Science*

- **Selected Courses:** Machine Learning(Phd Level), Machine Learning for Text Mining, Search Engines, Algorithms for NLP

### Nanjing University

2010 - 2014

*Bachelor in Computer Science, Department of Computer Science*

- **Selected Courses:** Algorithm Design & Analysis, Introduction to Data Mining, Software Engineering

## Selected Projects

### Machine Learning for Large Datasets

Jan 2015 - April 2015

- Implemented large-scale ML algorithms, including Naive Bayes, Phrase Finding, SGD Logistic Regression, Approximate Pagerank, Matrix Factorization, etc.

### Machine Learning for Text Mining

Jan 2015 - April 2015

- Implemented and optimized algorithms for Text Mining, including: Clustering, Pagerank, Collaborative Filtering, Pagerank, etc.

### Utilizing Product Reviews to Predict Ratings for New Product

Sep 2014 - Dec 2014

- Built an LDA-based topic model from Amazon review text to improve precision in lack of reviews.

### Multi-Algorithm Search Engine Framework

Aug 2014 - Dec 2014

- Built a Java-based retrieval framework that consists of Boolean, BM25, Indri retrieval algorithms.
- Handles multiple representations, query expansion, and Learning-to-Rank.

### SoseaDisk: A Distributed Storage System

Oct 2013 - Dec 2013

- Built a Java-based semi-centralized framework to improve reliability by assigning Super Nodes.

### Micro-kernel Operating System

Mar 2012 - June 2012

- Implemented a micro-kernel operating system with context switching, process/memory management and user program execution.

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## Links

cs.cmu.edu/~mingzhiz

linkedin.com/in/mingzhizeng

github.com/immzz

## Skills

Algorithm/Data Structure Design  
TCP/IP Networking  
Shell  
Unix/Linux  
AWS  
Hadoop

## Programming Languages

Python  
Java  
C#/C++  
SQL  
MATLAB  
R  
Django  
HTML5/CSS3/JavaScript

## Awards

iGEM Asia Jamboree Gold Medal	2013
People Scholarship, Second Prize	2012
Fujitsu Scholarship (1%)	2011
National Scholarship (1%)	2010

## Open Source Contributions

zhihu-scrapy : Complex crawling  
DFC-Nanjing : Django based website  
tile-witch : User-friendly map editor