# Taiyuan Zhang

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### Education

#### Carnegie Mellon University Pittsburgh, PA

Dec. 2015(Expected)

Master of Computational Data Science (Analytic), School of Computer Science

• Selected Courses: Machine Learning, Search Engine, Cloud Computing, Multimedia DB & Data Mining **Tsinghua University** Beijing, China Jul. 2014

Bachelor of Computer Software, School of Software

## Experience

## Hulu Beijing, China

Jul.2013 - Oct.2013

Full-stack web developer intern

- Built a real-time, online simulation and monitor tool (Simly) for product managers, researchers and content editors in Hulu
- Processed big data (Hulu users' daily behavior, the rate or predicted preference of users towards shows/movies, models with tens of millions of parameters), indexed in database. Implemented analytical query APIs

## SigmaLove(Qi-Ming-He-Xin) LLC Beijing, China

Oct. 2013 - May. 2014

Core developer(member of earliest founder team)

- Applied statistical analysis on collected student data, indexed result in MongoDB and implemented different web APIs to support data query
- Refactored previous system to event-driven style with Celery to improve system robustness
- Developed complex webapps with AngularJS and jQuery

## Independent Intelligent System Projects

#### Non-negative Matrix Factorization based Transfer Learning

Feb. 2014 - Jun. 2014

- Designed and implemented a program that can automatically download news documents with categories through RSS from major news websites
- Developed a program to automatically extract content, title, time from heterogeneous Chinese news webpages
- Designed and implemented a new transfer learning algorithm based on NMF. The algorithm achieves better results in different transfer learning datasets (including a text dataset collected as described above) than state-of-art common subspace learning methods

#### THSS Face Search Engine

Dec. 2013 - Feb. 2014

- $\bullet$  Implemented face detection, face feature extraction with OpenCV in C++. Integrated the algorithm with search framework through JNI
- Developed a image-to-images search framework with Java and MongoDB based on the idea of TF-IDF and soft-quantization

#### Technical Skills

- Python, Javascript, Java, C/C++. Matlab
- Data processing and analysis. SQL & NoSQL database

## Selected Honors and Awards

- Outstanding Study Scholarship, Tsinghua University
- Fund Scholarship, Vector and William Fung Foundation

Sep. 2013

Jan. 2013