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

Projects

Multi-Task Recursive Neural Network(10701 Machine Learning Project) Sep. 2014 - Nov. 2014
- Implemented parser to transform training data into sematic tree required by the algorithm
- Implemented and tuned stochastic gradient descent and multi-task learning (with *Python, Scipy*)

Twitter Data Analysis(15619 Cloud Computing Project) Sep. 2014 - Nov. 2014
- Implemented *Extract-Transform-Load* of twitter data with AWS Streaming Map Reduce.
- Configure MySQL/Hbase to store and index needed data
- Implemented and optimize web service with *Undertow* framework in Java

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 information 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

Technical Skills

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

Selected Honors and Awards

- Outstanding Study Scholarship, Tsinghua University Sep. 2013
- Fund Scholarship, Vector and William Fung Foundation Jan. 2013