

Jin Ruan

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EDUCATION	University of Wisconsin - Madison Sep. 2013 - May 2016 M.S., Computer Science, GPA: 3.91/4.00 M.S., Industrial Engineering, GPA: 3.88/4.00 Sun Yat-sen University , Guangzhou, China Sep. 2008 - June 2012 B.E., Traffic Engineering (Intelligent Transportation), GPA: 3.7/4.0
SKILLS	Languages: Java, Python, C/C++, SQL, HTML, CSS, R Web Development: JSP, Apache Struts 2, Apache Tomcat, Bootstrap Back-End: MySQL, Docker, AWS Big Data: Hadoop, HDFS, Apache Hbase
PROJECT	Movie Recommender System June 2016 - Aug. 2016
EXPERIENCE	<ul style="list-style-type: none">• Built a movie recommender system based on Item Collaborative Filtering using Hadoop MapReduce in Java.• Generated a personalized recommendation list of movies for over 480 thousand users from 17 thousand movies by running the system on Amazon Elastic MapReduce service.• Applied Mapper-Join in MapReduce to solve the Out-of-Memory problem caused by the huge movie co-occurrence matrix. Data Matching for Restaurants from Yelp and Yellow Pages Sep. 2015 - Dec. 2015 <ul style="list-style-type: none">• Built a Python crawler to crawl HTML data, extracted the information into two relational tables using BeautifulSoup library.• Reduced the number of candidate pairs from 280 million to 21 thousand by performing rule-based blocking with Jaccard Index, etc.• Achieved 0.94 precision rate, 0.97 recall rate on matching the two tables using Random Forest in Python. Food Paradise - Restaurant Rating Web Application Feb. 2015 - May 2015 <ul style="list-style-type: none">• Built a web application that allows users to search and rate restaurants based on Apache Struts 2 framework in Java.• Utilized MySQL as back-end database and developed a responsive website using Bootstrap framework. Identifying the Zygosity Status of Twins Feb. 2015 - May 2015 <ul style="list-style-type: none">• Used Estimation-Maximization algorithm on Bayes Network to infer the zygosity status for each pair of twins based on 15,000 patient medical records in Java.• Identified 318 out of 9817 diseases that correlate with zygosity status by conducting a two-sample t-test for the concordance rates between identical and fraternal twins for each disease. Parallel Seam Carving for Video Retargeting Feb. 2016 - May 2016 <ul style="list-style-type: none">• Proposed a new video retargeting algorithm based on carving discontinuous seams in time that is scalable for large videos.• Implemented and parallelized the algorithm using OpenCV in C++ and achieved 1.8 fps on 400x300 video compared to 0.2 fps for our implementation of the original seam carving video retargeting algorithm.
PATENT	1. Hui Zhang, Xiaoqiang Zhang, Jin Ruan , Manxia Liu. "Self-adaptive Video Synchronous LED Lighting Device". Publication number: CN202713746 U.