

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, C/C++, Python, SQL, HTML, CSS, R, Assembly language Back-End: MySQL, Docker, AWS Big Data: Hadoop, HDFS, Apache Hbase Other: OpenCV, JSP, Apache Struts 2, Apache Tomcat, Bootstrap
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. 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. System Programming Sep. 2015 - Dec. 2015 <ul style="list-style-type: none">Xv6 Kernel Development: Implemented modules including multi-level feedback queue process scheduler, kernel and user level multi-thread libraries, file system integrity through checksum.LINUX Shell: Implemented a tiny shell program that has features such as executing input commands, executing built-in commands like history, input redirection, executing batch scripts.Proxy Server: Wrote a robust multi-thread proxy server with a LRU policy cache implemented. 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. Identifying the Zygoty Status of Twins Feb. 2015 - May 2015 <ul style="list-style-type: none">Used Estimation-Maximization algorithm on Bayes Network to infer the zygoty status for each pair of twins based on 15,000 patient medical records in Java.Identified 318 out of 9817 diseases that correlate with zygoty status by conducting a two-sample t-test for the concordance rates between identical and fraternal twins for each disease.
PATENT	1. Hui Zhang, Xiaoqiang Zhang, Jin Ruan , Manxia Liu. "Self-adaptive Video Synchronous LED Lighting Device". Publication number: CN202713746 U.