Luting **Wang**

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Education

Carnegie Mellon University — *Pittsburgh, PA*
M.S. in Electrical and Computer Engineering, GPA: 4.0/4.0 — *May 2017 (expected)*
- Courses: Cloud Computing, Web Application, How to Write Fast Code, Speech Recognition, Computer Architecture

Sun Yat-sen University — *Guangzhou, China*
B.ENG. in Electronics and Information Technology, GPA: 3.8/4.0 — *July 2015*
- Honors: Meritorious Winner in Mathematical Contest In Modeling, Best Oral Presentation in International Conference

Internship

NVIDIA Corporation, Web Service Team — *Shenzhen, China*
Software Engineering Intern — *June-August 2016*
- Implemented and developed the pipeline framework using Java to collect, analyze and visualize NVIDIA products' user data saved in MongoDB and PostgreSQL.
- Designed and built a parallel system on Spark to leverage aggregated data to create valuable features for products' improvement, monitoring and decision making, including rom download speed and daily active user(DAU) features.

Chinese Academy of Sciences, institutes of Advanced Technology — *Shenzhen, China*
Research Assistant Intern — *May-July 2015*
- Researched and analyzed different algorithms on rain detection and removal from videos.
- Implemented a fast algorithm that can be used in heavy rain weather on Matlab, increasing the resolution of videos.

Projects

Twitter Analytics Web Service (Java)
Course Project — *Fall 2016*
- Built a cloud-based web server for 1TB Twitter data analysis supporting thousands QPS using AWS EMR, EC2 and ELB.
- Designed high performance schemas for MySQL and HBase to handle complex queries and allow fast data retrieval.
- Explored different web frameworks including Undertow and Vertx for web query service.

Social Web Application (Python)
Course Project — *Fall 2016*
- Built a website called Nuts, which is an interactive web application based on Django with social network features.
- Squirrel(user) can create private or public nuts, follow others, send site messages and make comments.
- Implemented plentiful features using open-source jQuery libraries, and finally deployed it in AWS EC2.

Movie Rating with Collaborative Filtering (Java, Scala)
Course Project — *Spring 2016*
- Developed an Item-Based Recommendation system with Hadoop and Mahout using 10 million ratings from the MovieLens, and calculated the top-5 most related movies for each user.
- Further Developed it with Spark to achieve 2x speed up than Mapreduce.

Parallel Code Optimization on Multicore, Manycore and Cluster (C++, Java)
Course Project — *Spring 2016*
- Implemented and optimized the hashtag similarity computation of twitters on 10M dataset on AWS EMR.
- Accelerated matrix multiplication and K-means algorithms using SSE, OpenMP and CUDA.

Speech Recognition System of Telephone Numbers (C++)
Course Project — *Fall 2015*
- Designed and constructed an integrated speech system to recognize telephone numbers using C++ on Visual Studio.
- Applied it on Aurora2 corpus with 8400 training and 1000 testing recordings, which achieved 75% recognition accuracy.

Skills

Languages C++, Java, Python, Scala, JavaScript, HTML, CSS
Tools Hadoop, Spark, Django, jQuery, Bootstrap, Git, JIRA, CUDA, OpenMP, Matlab
Databases PostgreSQL, MongoDB, HBase, MySQL