# Jiajun Yao

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**EDUCATION** Carnegie Mellon University, Pittsburgh, PA December 2015

School of Computer Science, Master of Computational Data Science

GPA 4.07

Nanjing University, Nanjing, P.R. China

June 2013

Bachelor of Engineering in Software Engineering

GPA 90.2

#### **EXPERIENCE**

# Qiduo Information Technology Co., Ltd.

July 2013 - July 2014

Software Engineer, Founding member

Beijing, P.R. China

- A startup providing mobile applications for enterprise
- In charge of server-side development for all mobile applications
- Developed server-side software using PHP and Python that served >100K users
- Developed an Android email client called LightMail

## Qiduo Information Technology Co., Ltd.

July 2012 - July 2013

Software Engineer Intern, Founding member

Nanjing, P.R. China

- Developed a cloud-based new mail checking and notification system
- Developed an enterprise social website

## **PROJECT EXPERIENCE**

### YARN Gang Scheduler

November 2014 - December 2014

Team Member (2 developers)

Carnegie Mellon University, Pittsburgh, PA

- A new heterogeneity-aware gang scheduler for the Hadoop YARN framework
- Implemented scheduling policies: FIFO, SJF and delayed scheduling
- Minimized the mean completion time of MPI and GPU jobs

## MapReduce Framework

October 2014 - November 2014

Team Member (2 developers)

Carnegie Mellon University, Pittsburgh, PA

- A MapReduce framework that is distributed and fault-tolerant
- Investigated the design and implementation of Hadoop and HDFS
- Architected and developed a distributed file system like HDFS
- Architected and developed a MapReduce facility like Hadoop

## **Congestion Control with BitTorrent**

October 2014 - November 2014

Team Member (2 developers)

Carnegie Mellon University, Pittsburgh, PA

- A BitTorrent-like file transfer application on top of UDP
- Architected and developed the server-side of the application
- Implemented congestion control mechanisms: slow start, AIMD and fast retransmission

### **HTTPS** Server

Individual Developer

September 2014 - October 2014 Carnegie Mellon University, Pittsburgh, PA

- A select()-based HTTPS1.1 server with CGI support

- Architected and developed the server using C
- Implemented HEAD, GET, POST and CGI
- Implemented a HTTP parser using Flex

## LightMail Server-side

September 2012 - September 2013

*Team Member (1 developer)* 

Qiduo Inc., Nanjing, P.R. China

- A cloud-based new mail checking and notification system for the LightMail iOS application
- Architected and developed the system using Python Twisted
- Solved the C10k problem
- Served >15K users everyday

RESEARCH EXPERIENCE

# **Recommender System for E-commerce Websites**

State Key Laboratory for Novel Software Technology

May 2011 - May 2012 Nanjing University, P.R. China

- Undergraduate innovation project of Nanjing University

- Studied data mining and applied related techniques to the "user cold start" problem

- Developed basic research abilities including paper reading and oral reporting skills

**SKILLS** Languages:

Big Data Technology:

Mobile Technology: Web Technology:

Database Experience:

Operating System:

Tools:

Java, Python, PHP, C, C++, JavaScript

Hadoop, Spark, Hive, Shark, AWS Android

Nginx, Twisted, Yii, ¡Query

MySQL, SQLite

yoqu, oquite Linux

Vim, Git, Eclipse, IntelliJ

PUBLICATION AND PATENT Jiawei Yao, Jiajun Yao, Rui Yang, Zhenyu Chen. "Product Recommendation Based on Search Keywords," in 9th Web Information System and Application Conference, Hainan, China, 2012

Zhenyu Chen, Jiawei Yao, Rui Yang, Jiajun Yao, Guobing Zhou. Patent "A Method for Product

Recommendation Base on Search Keywords" (2012100500573)

HONORS AND AWARDS

Excellent Graduate

**Excellent Bachelor Thesis** 

Jiangsu Software Scholarship

People Scholarship National Scholarship Excellent Student Nanjing University, 2013 Nanjing University, 2013

Jiangsu Economic and Information Technology Commission, 2013

Nanjing University, 2010, 2012

Ministry of Education of P.R. China, 2011 Nanjing University, 2010, 2011