

Huajian Mao 毛华坚

SENIOR SOFTWARE ARCHITECT · SENIOR SOFTWARE ENGINEER

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“Great oaks from little acorns grow.”

Education

National University of Defense Technology

COMPUTER SCIENCE AND TECHNOLOGY. (ADVISOR: LIONEL M. NI & NONG XIAO)

- Research on Key Technologies of Mobile Storage and Spatial Temporal Data Analysis in Cloud Environment.

Ph.D.

Mar. 2010 - Sep. 2013

National University of Defense Technology

COMPUTER SCIENCE AND TECHNOLOGY. (ADVISOR: YUTONG LU & WEISONG SHI)

- Research and Implementation on YaFS File System for Heterogeneous Storage Services.

M.Phil

Sep. 2007 - Dec. 2009

Zhejiang University

COMPUTER SCIENCE AND TECHNOLOGY

- Graduate with Honors, Top 5%

B.E.

Sep. 2003 - Jun. 2007

Work & Experience

Academy of Military Medical Sciences

ASSISTANT PROFESSOR

- Three years of research and development experience in biomedical informatics and related software systems.
- Lead a R&D team together with a company to design and implement an electronic health record system for military.

Beijing, China

Aug. 2013 - Present

Hongkong University of Science and Technology

VISITING SCHOLAR

- Research on a system for the Analysis of Vast Amount of Trajectories and Roads (AVATAR).
- Design and implement a Hadoop based distributed map matching framework for spatial-temporal data.

Clear Water Bay, Hongkong

Oct. 2010 - Sep. 2013

Selected Projects

CloudPHR

SYSTEM DESIGNER & CORE DEVELOPER

- A cloud service for fast generating and deploying personal health record systems.
- Shorten the PHR system core development time from months to days. [WIP]**

Java, RESTEasy, React, MongoDB

Jan. 2015 - Present

Medical Data Processing Platform

SYSTEM CORE DESIGNER

- A platform for medical data collecting, processing and serving.
- Have integrated national-wide medical record data from multiple health business systems for about 100,000 users.**

Spark, Java, MongoDB, ETL, HIT

Jul. 2014 - Present

Avatar

CORE DEVELOPER

- A system for the analysis of vast amount of trajectories and roads.
- Implement a Hadoop based distributed map matching framework for taxi GPS data.**

Hadoop, Java, Php, Map Matching

Oct. 2010 - Jul. 2013

Wukong

SOLE DEVELOPER

- A cloud-oriented file service for mobile Internet devices.
- Have integrated multiple RESTful API based cloud storages and provided a POSIX file system interface.**

Python, FUSE, Linux

Oct. 2009 - Nov. 2010

Special Friends

SOLE DEVELOPER

- An Android App of Weibo message receiver without using any data traffic.
- Outdated, but an interesting idea is used to make the App keep receiving messages from friends on Weibo even without any wifi or cellular data connection. It was useful for those who has not much or even no data traffic but still wants to receive Weibo messages.**

Android, Java, Sina App Engine

May 2011 - Aug. 2011

Honors & Awards

2007	Graduate with Honors (Top %5) , Zhejiang University	Zhejiang, China
2006	First-Class Scholarship and Excellent All-round Student , Zhejiang University	Zhejiang, China
2005	The Specialized Scholarship of Social Practice , Zhejiang University	Zhejiang, China
2005	Second-Class Scholarship and Excellent All-round Student , Zhejiang University	Zhejiang, China
2004	First-Class Scholarship and Excellent All-round Student , Zhejiang University	Zhejiang, China

Professional Activities

TCIST	Committee Member , Information Storage Technology, CCF, China	2014 - Present
TKDE	Reviewer , IEEE Transactions on Knowledge and Data Engineering	2016
JCST	Reviewer , Journal of Computer Science and Technology.	2012 - 2014

Skills

Programming	JAVA, C, Python, Php, Shell, Scala, LaTeX, Git
Platform	Apach Spark, Hadoop, Android
Web	HTML5, Bootstrap, React, Redux, Webpack, Grails
OS	Linux (mainly), Mac OS, Windows
Languages	Chinese (Native), English (Fluent)

Publications

Somersault cloud: Toward a cloud-of-clouds service for personal backup

Huajian Mao, Nong Xiao, Yutong Lu, Haifeng Xu
International Conference on Computing, Networking and Communications (ICNC), 2013

Efficient Similarity Joins on Massive High-Dimensional Datasets Using MapReduce

Wuman Luo, Haoyu Tan, Huajian Mao, Lionel Ni
13th International Conference on Mobile Data Management, 2012

Exploration of ground truth from raw GPS data

Huajian Mao, Wuman Luo, Haoyu Tan, Lionel M Ni, Nong Xiao
Proceedings of the ACM SIGKDD International Workshop on Urban Computing, 2012

Cmpres: To Save Your Cloud World Compressed

Huajian Mao, Nong Xiao, Yutong Lu
Fourth International Conference on Computational and Information Sciences (ICCIS), 2012

RAIC: Redundant Array of Inexpensive Cloud

Huajian Mao, Nong Xiao, Yutong Lu
International Conference on Hybrid Information Technology, 2012

Wukong: A cloud-oriented file service for mobile Internet devices

Huajian Mao, Nong Xiao, Weisong Sh, Yutong Lu
Journal of Parallel and Distributed Computing 72.2 (2012) pp. 171–184. Elsevier, 2012

EaSync: A Transparent File Synchronization Service across Multiple Machines

Huajian Mao, Hang Zhang, Xianqiang Bao, Nong Xiao, Weisong Shi, Yutong Lu
IFIP International Conference on Network and Parallel Computing, 2012

On packing very large R-trees

Haoyu Tan, Wuman Luo, Huajian Mao, Lionel M Ni
IEEE 13th International Conference on Mobile Data Management, 2012

MR-DBSCAN: An Efficient Parallel Density-based Clustering Algorithm Using MapReduce

Yaobin He, Haoyu Tan, Wuman Luo, Huajian Mao, Di Ma, Jianping Fan
IEEE International Conference on Parallel and Distributed Systems, 2011

A Distributed filesystem framework for transparent accessing heterogeneous storage services

Yutong Lu, Huajian Mao, Jie Shen
IEEE International Symposium on Parallel & Distributed Processing. 2009