# Lianhua CHI

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IBM Research

IBM Homepage: http://goo.gl/YxPhOu

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Victoria, 3006, Australia Personal Homepage: https://lianhua1221.github.io/

EDUCATION University of Technology Sydney, Sydney, NSW, Australia

Doctor of Philosophy (Information Technology - Machine Learning) Feb 2013 - Aug 2015

Huazhong University of Science and Technology, Wuhan, Hubei, China

Doctor of Philosophy (Computer Software and Theory - Data Mining) Sep 2009 - Sep 2015

Huazhong University of Science and Technology, Wuhan, Hubei, China

Master Degree Candidate (Computer Software and Theory - Database) Sep 2008 – Jul 2009

Wuhan University of Science and Technology, Wuhan, Hubei, China

Bachelor of Engineering (Computer Science and Technology) Sep 2004 – Jul 2008

Wuhan University of Science and Technology, Wuhan, Hubei, China

Bachelor of Literature (English) Sep 2005 – Jul 2008

Selected Awards Young Global Changer Award in 2017 by Think Summit GLOBAL SOLUTIONS - G20

Romberg Grant Award in 2016 by Heidelberg Laureate Forum and University of Heidelberg

One of Top 200 Young Researchers Award in 2016 by Heidelberg Laureate Forum

First Patent Application Invention Achievement Award in 2016 by IBM

**Best Paper Award in 2013** by 17th Pacific-Asia Conference on Knowledge Discovery and Data Mining

ARC Discovery Scholarship Award in 2013 by University of Technology Sydney

Work Experience IBM Research, Melbourne, Victoria, Australia

## Postdoctoral Research Scientist

May 2015 - Current

Email: lianhuac@au1.ibm.com

Responsibilities:

- Developing and evaluating data correlation analytics on open source datasets from different sectors
- Analysing big data in social media and evaluating event impacts on time series.
- Optimising hospital resource management with machine learning techniques and SPSS
- Working on Watson Education and Watson Health

### Achievements:

- 7 patents (3 filed, 4 submitted)
- 4 papers published, 2 abstracts accepted, 2 journals accepted (impact factor: one is 8.82 and the other is 7.384), 1 journal submitted, 1 conference paper submitted
- Supervised 2 interns on the Geotagger project and Event API project with successful demos
- $\bullet\,$  Developed an Alpha-maturity asset
- Received the "put the client first" recognition in IBM Recognition Centre

University of New South Wales, Sydney, NSW, Australia

Data Specialist Apr 2015– May 2015

Responsibilities:

• Exploration, interpretation and visualisation of Massive Open Online Courses (MOOC) data

### University of Technology Sydney, Sydney, NSW, Australia

#### Visiting Researcher

Mar 2012- Feb 2013

Responsibilities:

• Collaborated with my colleagues and supervisors to solve existing problems and develop new theories on big data analysis

DaMeng Database Co., Ltd., Wuhan, Hubei, China

# Software Engineer

Jul 2008- Mar 2011

Responsibilities:

- Designed the OLAP system interface
- Programmed OLAP application using Java, developing the data warehouse product
- Managed and designed data warehouse, processing a variety of large-scale data from different data platforms

Foreign Economic and Technological Cooperation Promotion Association, Shenzhen, Guangdong, China

Database Trainer Jun 2010- Dec 2011

Responsibilities:

- Developed training schedules for database class on request
- Taught students how to correctly use database
- Managed classroom, software and network setup
- Communicated with students to ensure that training goes smoothly

Patents

Lianhua Chi, Alessio Bonti, "SYSTEM, METHOD AND COMPUTER PROGRAM FOR A COG-NITIVE MEDIA STORY EXTRACTOR AND VIDEO COMPOSER", US YOR920161026US1, filed 2016.

Lianhua Chi, Bo Han, Anna Phan, Chris Butler, Juerg von Kaenel, "SYSTEM AND METHOD FOR UNSTRUCTURED METADATA CORRELATION", US YOR920160975US1, filed 2017

Lianhua Chi, Alessio Bonti, "SYBIL IDENTIFICATION MECHANISM FOR FRAUD DOCUMENTS DETECTION THROUGH COGNITIVE BASED PERSONAL ENCRYPTION KEY", filed 2017

Selected Journal Papers

Lianhua Chi, Bin Li, Xingquan Zhu, Shirui Pan, Ling Chen, "Hashing for Adaptive Real-time Graph Stream Classification with Concept Drifts", In IEEE Transactions on Cybernetics, 2017.

Lianhua Chi, Xingquan Zhu, "Hashing Techniques: A Survey and Taxonomy", In ACM Computing Survey, 2017.

Selected Workshop Papers

Lianhua Chi, Saket Sathe, Bo Han, Yun Wang, "A Novel Method for Assessing Event Impacts on Conference and Event-Driven Time Series", in IEEE International Workshop on Data Mining for Service in ICDM 2016, 2016

> Lianhua Chi, Bo Han, Yun Wang, "Open Problem: Accurately Measuring Event Impacts on Time Series", in the 2nd SIGKDD Workshop on Mining and Learning from Time Series in KDD16, 2016

> Lianhua Chi, Kwan Hui Lim, Nebula Alam, Chris Butler, "Geolocation Prediction in Twitter using Location Indicative Words and Textual Features", in the 2nd Workshop on Noisy User-generated Text (W-NUT), 2016, pp. 227

> Bo Han, Antonio Jose Jimeno Yepes, Andrew MacKinlay and Lianhua Chi, "Temporal Modelling of Geospatial Words in Twitter", in Australasian Language Technology Association Workshop, 2016, pp. 133

> Lianhua Chi, Bin Li, Xingquan Zhu, "Context-Preserving Hashing for Fast Text Classification", in SIAM International Conference on Data Mining, 100–108, Philadelphia, Pennsylvania, USA, 2014.

> Lianhua Chi, Bin Li, Xingquan Zhu, "Fast Graph Stream Classification Using Discriminative Clique Hashing", In Pacific-Asia Conference on Knowledge Discovery and Data Mining, 225–236, Gold Coast, Australia, 2013. (Best Long Paper)

### SELECTED PROFESSIONAL SERVICES

- Organising Committee, Program Chair (Application Track) AusDM 2017: The 15th Australasian Data Mining Conference
- Program Committee Member (Application Track) AusDM 2016: The 14th Australasian Data Mining Conference
- Reviewer WWWJ: World Wide Web Journal
- Reviewer IEEE Intelligent Systems
- Reviewer Australasian Journal of Information Systems

#### Skills

- Critical and creative thinking
- Experienced data analyst specialised in hash-based methods and graph stream mining
- Proficient in C; Experienced in Python, C++, R, Java and Matlab
- HPC cluster coding experience

## EXTRA-CURRICULAR ACTIVITIES

- Dancing
- Playing pingpong, badminton
- Short, fast running and long-distance running

### Referees

Available upon request