



## Qiang Yang

**New Bright  
Professor of  
Engineering, Chair  
Professor and  
Head of Department  
of Computer Science  
and Engineering,  
Hong Kong  
University of Science  
and Technology**



**IEEE TBD  
Submission Link**



**IJCAI 2015  
Proceedings**

### Address:

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### Research Interests:

- **Artificial Intelligence:** Transfer Learning, Machine Learning, Planning, Data Mining

[Online Publication List](#) | [Google Scholar](#) | [Transfer Learning Survey, Software and Data Resources](#)  
[Transfer Learning in Social Recommendations](#) | [MIT Technology Review Article \(ViCAD System\)](#)  
 Transfer Learning Papers in Recent Conferences ([Link](#)) | Book: **Crafting Your Research Future**,  
 Morgan&Claypool Publishers ([link](#)) ([PDF](#)) | Hong Kong RGC Research Frontiers Article:  
 Heterogeneous Transfer Learning [Eng](#), [Chn](#) | [Bio](#)

**\*\* Chair, IJCAI-2017 Awards Committee:** [Call for Award Nominations](#)

**\*\* Chair, ACM KDD 2017 Test of Time Award Committee:** [Call for Award Nominations](#)

**\*\* Chair, IEEE Intelligent Systems Top-10-to-Watch Committee:** [Call for Award Nominations](#)

### Positions and Education:

- 2015 - present: CSE Department Head, University New Bright Professor of Engineering and Chair Professor, Hong Kong University of Science and Technology
- 2016 - present: Director, [HKUST Big Data Institute](#)
- 2012 - 2014, Founding Head, [Huawei Noah Ark Research Lab](#)
- 2001- present: HKUST: Full Professor (2007 - ) Associate Department Head (PG and Research) (2011 - 2012), Postgraduate Coordinator (2007-2009), Associate Professor, 2001-2007, Founding Co-Director of [RMBI Program](#) HKUST (2007-2011)
- 1995 - 2001: NSERC Industry Research Chair (1995-2001), Associate/Full Professor at [Simon Fraser University](#), BC Canada (1995 - 2001)
- 1989 - 1995: Assistant/Associate Professor, Computer Science, [University of Waterloo](#), Waterloo, Ont. Canada

- 1999 - 2000: Visiting Researcher at [Microsoft Research China](#) and [University of Washington](#), USA
- Laboratory Affiliations: [AI](#) and [Databases](#)
- B.Sc. (1982) [Astrophysics](#) at [Peking University](#), Beijing, China (Alumnus of the [CUSPEA program](#) in 1982)
- M.Sc. (1985) [Astrophysics](#), [University of Maryland](#), USA
- M.Sc. (1987) Computer Science, [University of Maryland](#), USA
- PhD (1989) Computer Science, [University of Maryland](#), USA

### Honor:

- AAAI Fellow (2013 - ) Association for the Advancement of Artificial Intelligence
  - for significant contributions to AI Planning, Data Mining and Case-based Reasoning
  - [Link to AAAI page](#).
- AAAS Fellow (2012 - ) American Association for the Advancement of Science
  - for significant contributions to Data Mining, Learning and Planning: theory, applications, and services
  - [Link to AAAS](#), [Oriental Daily](#)
- IAPR Fellow (2012 - ) International Association of Pattern Recognition
  - for significant contributions to Data Mining and Transfer Learning
  - [Link to IAPR: International Association of Pattern Recognition](#)
- IEEE Fellow (2009 - ) Institute of Electrical and Electronics Engineers
  - for Significant Contributions to the Understanding and Application of Intelligent Planning, Learning and Data Mining
  - [Link to HKUST News Release](#)
- ACM Distinguished Scientist (2011 - ) Association of Computing Machinery, [Link to ACM](#)

### Awards:

- Two champions out of three dedicated tasks in Nokia Mobile Data Challenge (Nokia MDC), 2012: see [Announcement](#).
- [ACM CIKM-2011 Best Interdisciplinary Paper Award](#): Ou Jin, Nathan Nan Liu, Yong Yu and Qiang Yang. [Transferring Topical Knowledge from Auxiliary Long Text for Short Text Understanding](#). Proceedings of the 20th ACM Conference on Information and Knowledge Management (ACM CIKM 2011). Glasgow, UK. Oct 2011.
- Third place in the rating prediction of ACM [KDDCUP 2011](#), [Yahoo! Music Recommendation Challenge](#) (Team Coach of [Inner Peace](#) team) ([more info](#))
- Champion (Team Coach) of the [2005 ACM KDDCUP Competition](#) on all three performance metrics. See related [news item](#) at the university and at [KDNuggets](#). (Also see: our system demonstration: <http://q2c.cs.ust.hk/q2c/>)
- Co-Champion for the System ARMS (with Kangheng Wu and Yunfei Jiang) for learning planning models  
[First International Competition on Knowledge Engineering for Planning and Scheduling, ICAPS 2005](#), Monterey, CA, USA

- Champion (Team Coach, Tied for #1 Overall) of the [2004 ACM KDDCUP Competition](#)
- Co-winner of the 1996 Automated Software Engineering Conference best paper award
- Co-winner of the 1994 Canadian AI Conference, best paper award

### Conference and Society Activities:

- IJCAI 2017 Awards Committee Chair (2016 - 2017), AAAI Executive Council Member (2016 -)
- Program Chair, [IJCAI 2015](#), Buenos Aires, Argentina from July 25th to August 1st, 2015.
- Best Paper Award Committee Chair, ACM WSDM 2015.
- Chinese AI Society Vice Chair, [中国人工智能学会](#)海外副理事长、理事和常务理事 (2014 - )
- Judge, 2014 Alibaba Big Data Contest, Aug 2014. [Media](#)
- General co-chair: [ACM RecSys 2013](#), Hong Kong, China, Oct 2013.
- Program co-chair: [IEEE Big Data Conference](#), 2013. CA USA Oct 2013.
- General Chair, [ACM KDD 2012](#), Beijing, China, Aug 12-16, 2012. [Interviewing Chinese KDD Scholars for KDD 2012: A Conversation with the Chinese KDD Leaders \(link\)](#).
- [IJCAI](#) Trustee (2011 - 2017), [IJCAI 2013](#) Publicity Chair and Area Chair.
- Vice Chair of [ACM SIGART](#) (ACM Special Interest Group on Artificial Intelligence). July 2010.
- [More Conference Activities](#)

### Advisory Committee Membership:

- Advisory Committee Chair, ACM TIST 2015 -
- Trustee, [IJCAI Inc](#) (2011-2017). Advisory Committee Member: [IJCAI-11](#)
- Advisory Committee Member of [ACM SIGAI](#), Feb 2014 -
- Steering Committee Member of [Asia Conference on Machine Learning \(ACML\)](#): 2009 - present
- Steering Committee Member of [Advanced Data Mining and Application Conference \(ADMA\)](#): 2008 - present
- Advisor: Department of Computer Science, University of Macau
- Advisory Board of [Knowledge Management & E-Learning: An International Journal \(KM&EL\)](#): 2009 – present
- Advisory Board of [International Journal of Machine Learning and Cybernetics \(IJMLC\)](#): 2010 – present

### Editorship:

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#### [ACM TIST:](#)

- Founding Editor in Chief, , 2009 - 2015
- Advisory Committee Chair 2015 -
- [Submission Link](#)





- **Founding EiC of [IEEE Transactions on Big Data](#) (January 1, 2015 - )**
- Associate Editor of [AI Magazine](#), 2012 -
- Associate Editor of [IEEE Intelligent Systems](#), 2005 -
- Series Editor for [Morgan&Claypool Synthesis Series: On Research Methodology](#)
- Associate Editor of [IEEE Transactions on Knowledge and Data Engineering \(TKDE\)](#), 2005 - 2009
- Editorial Board Member of [Web Intelligence and Agent Systems Journal](#) 2003 -
- Associate Editor in Chief of [Journal of Computer Science and Technology](#), 2012 - (associate editor since 2007)
- Editorial Board Member of [Frontiers of Computer Science in China](#) 2010 -

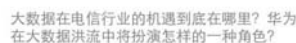
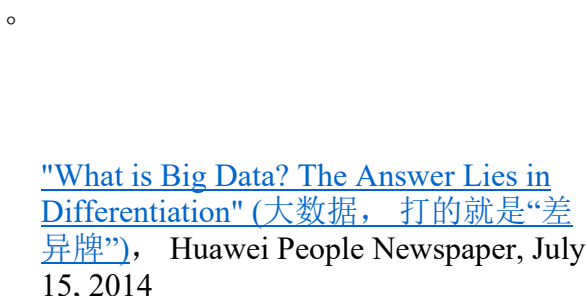
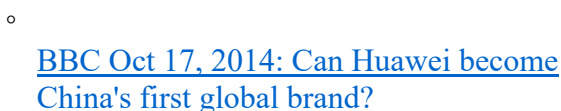
**Research:** [Publications by Year](#) | [Google Scholar Profile](#) | [Patent](#) | [Research Projects](#)

### Datasets:

- [Transfer Learning Survey, Software and Data Resources](#)
- [2009 IEEE ICDM Data Mining Contest](#)
- [2007 IEEE ICDM Data Mining Contest](#)
- [2010 Microsoft Research Asia GeoLife Dataset](#) (see papers at [AAAI 2010](#) and [WWW 2010](#))

### Media

- [从互联网+到人工智能+](#), 中国科协, 广州, May 2015
- [科大明年推大數據副修課程 - 大公資訊 - 大公網](#)
- [科大學者研大數據獲頒冠名教授- 星島日報](#)
- SCMP Article [Let traditional Hong Kong industries be challenged by tech sector](#), May 2015
- [人工智能不是造人脑-新华网](#)
- [港校教电脑写诗, 领先业界五年](#): 文汇报, April 2015
- 《后图灵测试时代: 一个从一到N的时代》 [Link](#)
- 《图灵错了吗? —— 后图灵时代的开启》科技福布斯中文网 ([Link](#))
- 《踹不倒的谷歌大狗是怎样炼成的? 》2015.2.24: [Link](#), [GEO视界](#)
- 《人工智能的冬天》福布斯中文网, 人工智能专栏, 2015. 2.16: [Link](#), [Report](#)
- 《[十问大数据](#)》2015.1.23: 互联网经济杂志
- “《[星际穿越](#)》,江湖和人工智能”, 2014. 11.30: [Link](#)
- [大数据三问 \(Oct 20, 2014, 华为人报\) \(Three Questions on Big Data\)](#)
- [TEDxNanjing: 【杨强】复杂与美 年度大会 What is Intelligence? 智能的本质 Oct 19, 2014](#)



- [China Big Data Technology Conference 2013](#)
- [A Conversation with Ren Zhengfei on Innovation, 2012](#)
- [View on Big Data: Speech at Huawei Cloud Conference 2013](#)



[Article in 'The Standard' newspaper on Big Data, Hong Kong, 2013](#)



- [News on AAAI Fellow, 2013](#)
- [News on AAAS Fellow, 2012](#)
- [Huawei Win Win Magazine Article on Social Media, 2011](#)
- MIT Technology Review: [Web Images to Ads 2011](#)
- [Automatic Knowledge Discovery](#) (in Chinese, from '10,000 Scientific Challenges'; 《10000个科学 难题——信息科学卷》, [Science Press](#))

### Invited Talks:

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- "From Internet+ to +AI", [RoboCUP 2015 EcoSystems Summit, Hefei China, July 2015](#)
- [从大数据到人工智能, Peking University, July 2015](#)
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IdeasLab@Davos, Switzerland, "Bridging the Virtual and Physical Worlds with Artificial Intelligence", Jan 23 2015.



- Talk at University of Electronic Science and Technology of China, UESTC Chengdu, China. User Modeling in Big Data. Jan 2015. [Link](#)
- Invited Talk at [City University of Hong Kong, Big Data Forum](#), Oct 13 2014 ([Media](#)).
- Invited Talk in [NYU Shanghai, Big Data Forum](#), Nov 13-14, 2014.
- Invited Talk at [Chinese Conference on Information Retrieval \(CCIR 2014\)](#), Kun Ming, Yunnan, China, Aug 2014: "User Modeling in Big Data Era".
- Invited Talk at [Big Data and Analytics Innovation Summit](#), "Modeling Users in Social and Mobile Big Data Market", Beijing, China, November 2014.
- [2014 iResearch Marketing Summit](#), "[User Behavior Mining and Modeling in the Internet Era](#)", July 24, 2014, Shenzhen, China.
- "An Overview of Transfer Learning" at 2014 Machine Learning Summer School, Beijing, China ([Link](#))
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"Big Data and Artificial Intelligence", [The Big Data and Digital Innovation 2014 Conference](#) organized by Marketing Magazine, Hong Kong, June 2014.



Hong Kong IE Annual Conference on "[Big Data in a Big City](#)", May 2014

- Invited Speaker at [BNP-Paribas 5th Asia Pacific TMT Conference "Monetizing Connectivity"](#), May 2014
- Invited Speaker at [the Big Data Innovation Summit, 2013](#): User Modeling in Social Media and Big Data, March 2014.
- Invited Speaker at [Tencent Technology Sharing Day](#), Title: User Modeling in Big Data, Shenzhen China. April 2014
- Keynote Speaker at [Huawei Cloud Conference 2013, Into the Big Data](#), Shanghai, 2013 ([link](#))

- Keynote Speaker: PAKDD 2013, Brisbane, Australia, April 2013. Title: [Big Data, Lifelong Machine Learning and Transfer Learning](#).
- Keynote Speaker: [ACM WSDM 2013](#), Rome Italy, Feb 2013. Title: [Big Data, Lifelong Machine Learning and Transfer Learning](#).
- Keynote Speaker at [ADMA 2012 Conference](#), Nanjing, China, Dec 2012. Title: Transfer Learning with Applications.
- Invited Speaker at ACM KDD-2012 [Workshop on Cross-domain Knowledge Discovery on Web and Social Networks](#). Title: Heterogeneous and Source-Free Transfer Learning in Data Mining. Beijing, China Aug 12, 2012.
- Keynote speaker at the 7th IFIP International Conference on Intelligent Information Processing ([IIP2012](#)), 12-15 October, 2012 in Guilin, China. Title: Transfer Learning and Applications.
- Invited Talk at Taiwan AI Society Annual Conference ([TAAI-2012](#)), Tainan, Taiwan, Nov 2012.
- Invited Speaker at [SIAM International Conference on Data Mining \(SDM-12\)](#), Title: [Cross-Domain Knowledge Transfer in Data Mining](#) Anaheim, CA USA, April 26-28, 2012. ([PDF](#))
- Keynote Talk at [PCC \(Chinese Pervasive Computing Conference, 2011\)](#), Title: "Collaborative, Cross-Domain Activity Recognition For Ambient Living (协作及跨域环境下的动作识别)", Sept 17, 2011, Tsinghua University, China.
- Invited Talk at IJCAI Workshop on Social Web Mining: [Transfer Learning in Social Recommendations](#). July 25, 2011. Barcelona, Spain.
- Keynote at 2011 Chinese Conference on Data Mining ([CCDM 2011, 中国数据挖掘年会](#)): "[From Learning by Analogy to Transfer Learning](#)", May 2011, Guangzhou, China.
- [Distinguished Lecture Series](#), Academia Sinica, Institute of Information Science, Taipei Taiwan. May 2011 ([link](#))
- [2010 Australasian Joint Conference on Artificial Intelligence](#). Keynote Speech: Data Mining for Sensor-based Activity Recognition. Dec 2010.
- IJCAI 2009 Invited Talk: [Activity Recognition: Linking Low-level Sensors to High-level Intelligence](#), Pasadena CA USA. July 17 2009. ([Video&Slides @ Videolectures.net](#); and [invited paper in PDF format](#))
- ACL 2009 Invited Talk: [Heterogeneous Transfer Learning with Real-world Applications](#), Singapore, August 2009 ([Slides in PDF Format](#) (2.5MB), and [invited paper in PDF format](#))

[More invited talks...](#)

## Books:

- [Intelligent Planning -- A Decomposition and Abstraction Based Approach](#). Qiang Yang, Springer Verlag, 1997.  
- See a [book review](#) by Fausto Giunchiglia and Luca Spalazzi in the [Artificial Intelligence Journal](#).
- [Constraint-based Design Recovery for Software Reengineering: Theory and Experiments](#). Steven Woods, Alex Quilici and Qiang Yang. Kluwer Academic Publishers, Dec. 1997.



## Crafting Your Research Future: A Guide to Successful Master's and Ph.D. Degrees in Science & Engineering

- By [Charles X. Ling](#) and Qiang Yang, [Morgan & Claypool Publishers](#)
- If your institute subscribes publisher's Synthesis Digital Library ([list](#)), you can download the book ([PDF](#)) free of charge (for your personal use only) [here](#)
- You can order the printed book from Amazon [here](#)
- [Critical Acclaim for the book](#)



- Chinese Version: [Tsinghua University Press](#), November 2012
- [DangDang.com](#)

### Teaching:

- HKUST Masters of Science in Big Data Technology: [MSBD 5001](#) Dragonstar Lectures in Ren Min University, May 2012
- Spring 2012: [COMP 4332: Advanced Data Mining](#) in Business Intelligence and Social Media (COMP 4332/RMBI4310)
- Spring 2011: Research Topics in Social Networks, Social Media. ([COMP 621U](#))
- [Teaching at Simon Fraser University and the University of Waterloo](#)
- 2007 Dragon-star Lecture on Data Mining ([龙星计划](#), [川大龙星计划](#))
- [Other teaching activities at HKUST](#)

### Hong Kong Services:

- Hong Kong RGC Engineering Research Panel (2009 - 2011)
- Expert Group on Cloud Computing Services and Standards ([Office of the HK Government Chief Information Officer](#), 2012 -)
- [More Services at HKUST](#)

### Current Graduate Students:

- [Kaixiang Mo](#)
- [Ben Tan](#)
- [Bin Wu](#) (Co-supervised with [Andrew Horner](#))
- [Zhongqi Lu](#)
- [Ying Wei](#)
- Bo Liu
- Lili Zhao



- Group Photos: [2005](#), [2006](#), [2007](#), [2008](#), [2009](#), [2011](#), [2012](#), [2013](#) ...

### Past PhD Students:

- [George \(Georgios\) Trimponias](#), graduated in Feb 2015. Thesis: [Game-Theoretic Design for Assignment and Ranking in Online Advertising and Human Computation](#), Now: Huawei Noah's Ark Lab.
- Dr. [Yin Zhu](#), graduated in August 2014. Thesis: [Activity Recognition via Social Knowledge Transfer](#). July 21, 2014.
- Dr. [Erheng Zhong](#), graduated in Feb 2014. Thesis: [Composite Social Network Analysis \(PDF\)](#). Now: [Yahoo! Labs.](#), USA.
- Dr. [Derek Hao Hu](#), graduated in Dec 2012. Thesis: [Learning based Activity Recognition \(PDF\)](#). Now: Microsoft (Bing) at Redmond, Washington, USA.
- Dr. [Weizhu Chen](#), graduated in Aug 2012. Thesis: [An Associative Characterization of Click Models in Web Search \(PDF\)](#). Now: Microsoft (Bing) at Redmond, Washington, USA.
- Dr. Simone Marini, graduated in Aug 2012. Thesis: [Qualitative and Quantitative Protein Interaction Prediction with Machine Learning](#). Now: Postdoc in Italy.
- Dr. [Evan Wei Xiang](#), graduated in June 2012. Thesis: [Transfer Learning with Open Web Data \(PDF\)](#). Now: [Baidu.com](#)
- Dr. [Weike Pan](#), graduated in June, 2012. Thesis: [Transfer Learning in Collaborative Filtering \(PDF\)](#). Now: Assistant Professor at Shenzhen University, Shenzhen, China.
- Dr. [Nathan Nan Liu](#), graduated in December, 2011. Thesis: [Ranking Oriented Approach to Context Aware Recommendation \(PDF\)](#). Current: [Yahoo! Labs](#).
- Dr. [Bin Cao](#), graduated in August, 2011. Thesis: [Collaborative and Transfer Learning in Recommendations \(PDF\)](#). Current: Microsoft Research Asia.
- Dr. [Vincent Wenchen Zheng](#), graduated in August, 2011. Thesis: [Learning with Limited Data in Sensor-based Human Behavior Recognition \(PDF\)](#). Current: Institute for Infocomm Research, Singapore.
- Dr. [Can Yang](#), graduated in May, 2011. Co-supervised with [Weichuan Yu](#). Thesis: [SNP data analysis in genome-wide association studies \(PDF\)](#). Now: Yale University, USA.
- Dr. Qian Xu, graduated in Nov 2010. Co-supervised with [Hong Xue](#). Thesis: [Knowledge Transfer for Solving the Data Scarcity Problem for Machine Learning in Bioinformatics \(PDF\)](#). Now: [Baidu.com](#)
- Dr. [Sinno Jialin Pan](#). Graduated in September 2010. Thesis: [Feature-based Transfer Learning with Real-world Applications \(PDF\)](#). 2010- 2014: Institute for Infocomm Research, Singapore. 2014 -: Nanyang Professor at Nanyang Technological University (NTU), Singapore.
- Dr. [Jeffrey Junfeng Pan](#). Graduated in December 2007. Thesis: [Learning-based Localization in Wireless and Sensor Networks \(PDF\)](#). Current: Facebook
- Dr. [Dou Shen](#). Graduated in June 2007. Thesis: [Learning Based Web Query Understanding \(PDF\)](#). co-founder: [BuzzLabs](#), and 2011-2012: Senior Director, [CityGrid Media](#). 2012-2014: Director of Advertisement Union, Baidu Inc. 2014- : Director of Search and Personalization, Baidu Inc. Beijing, China.
- Dr. [Jie Yin](#). Graduated in June 2006. Thesis: [Probabilistic Activity Recognition from Low-Level Sensors \(PDF\)](#). Research Scientist, [CSIRO, Australia](#).
- [Dr. Steven Woods](#), Senior Engineering Director, Google Canada ([Wiki](#)). Thesis (1996): [A Method of Program Understanding using Constraint Satisfaction for](#)

[Software Reverse Engineering.](#) University of Waterloo, Canada. Now: Engineering  
Director of Google Canada.

### **Other Past Students and Visitors**

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