

## Derek Hao Hu

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### Education

- 2007.9 ~ Present: *Ph.D. Candidate*, Department of Computer Science and Engineering, HKUST.  
Supervisor: Prof. Qiang Yang.
- 2003.9 ~ 2007.6: *B.Sc.*, Department of Computer Science and Technology, Nanjing University.  
Supervisor: Prof. Zhi-Hua Zhou.

### Work Experience

- 2011.10 ~ Now: *Intern*, ISRC, Microsoft Research.  
Mentor: Dr. Chao Liu.
- 2008.7 ~ 2009.2: *Intern*, Machine Learning Group, Microsoft Research Asia.  
Research Project: Context-Aware Query Classification.  
Mentor: Dr. Jian-Tao Sun.

### Journal Publications

1. **Derek Hao Hu**, Vincent Wenchen Zheng, Qiang Yang.  
Cross-domain activity recognition via transfer learning.  
In *Pervasive and Mobile Computing*, 7(3):344-358.
2. Hankui Zhuo, Qiang Yang, **Derek Hao Hu**, Lei Li.  
Learning complex action models with quantifiers and logical implications.  
In *Artificial Intelligence*, 174(18):1540-1569.
3. Evan Wei Xiang, Bin Cao, **Derek Hao Hu**, Qiang Yang.  
Bridging Domains Using World Wide Knowledge.  
In *IEEE Transactions on Knowledge and Data Engineering*, 22(6):770-783.
4. Qian Xu, **Derek Hao Hu**, Hong Xue, Weichuan Yu, Qiang Yang.  
Semi-supervised Protein Subcellular Localization.  
In *BMC Bioinformatics*, Volume 10 (Suppl 1):S47.

### Conference Publications

1. **Derek Hao Hu**, Qiang Yang.  
Transfer Learning for Activity Recognition via Sensor Mapping.  
In *Proceedings of the Twenty-Second International Joint Conference on Artificial Intelligence (IJCAI 2011)*, Barcelona, Spain, Pages 1962-1967.
2. Qian Xu, **Derek Hao Hu**, Hong Xue, Qiang Yang.  
Predicting Chemical Activities From Structures by Attributed Molecular Graph Classification.  
In *Proceedings of the 2010 IEEE Symposium on Computational Intelligence in Bioinformatics and Computational Biology (CIBCB 2010)*.
3. Bin Cao, Jian-Tao Sun, Evan Wei Xiang, **Derek Hao Hu**, Qiang Yang, Zheng Chen.  
PQC: Personalized Query Classification.  
In *Proceedings of the Eighteenth ACM Conference on Information and Knowledge Management (CIKM 2009)*, Hong Kong, Pages 1217-1225.

4. **Derek Hao Hu**, Dou Shen, Jian-Tao Sun, Qiang Yang, Zheng Chen.  
Context-Aware Online Commercial Intention Detection.  
In *Proceedings of the First Asian Conference on Machine Learning (ACML 2009)*, Nanjing, China, Pages 134-149.
5. Vincent Wenchen Zheng, **Derek Hao Hu**, Qiang Yang.  
Cross-Domain Activity Recognition.  
In *Proceedings of the Eleventh International Conference on Ubiquitous Computing (UbiComp 2009)*, Orlando, Florida, USA, Pages 61-70.
6. Huanhuan Cao, **Derek Hao Hu**, Dou Shen, Daxin Jiang, Jian-Tao Sun, Enhong Chen, Qiang Yang.  
Context-aware Query Classification.  
In *Proceedings of the Thirty-Second International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR 2009)*, Boston, Massachusetts, USA, Pages 3-10.
7. **Derek Hao Hu**, Xian-Xing Zhang, Jie Yin, Vincent Wenchen Zheng, Qiang Yang.  
Abnormal Activity Recognition based on HDP-HMM Models.  
In *Proceedings of the Twenty-First International Joint Conference on Artificial Intelligence (IJCAI 2009)*, Pasadena, California, USA, Pages 1715-1720.
8. Jie Yin, **Derek Hao Hu**, Qiang Yang.  
Spatio-temporal Event Detection Using Dynamic Conditional Random Fields.  
In *Proceedings of the Twenty-First International Joint Conference on Artificial Intelligence (IJCAI 2009)*, Pasadena, California, USA, Pages 1321-1326.
9. Hankui Zhuo, **Derek Hao Hu**, Chad Hogg, Qiang Yang, Hector Munoz-Avila.  
Learning HTN Method Preconditions and Action Models from Partial Observations.  
In *Proceedings of the Twenty-First International Joint Conference on Artificial Intelligence (IJCAI 2009)*, Pasadena, California, USA, Pages 1804-1809.
10. Xian-Xing Zhang, Hua Liu, Yang Gao, **Derek Hao Hu**.  
Detecting abnormal events via Hierarchical Dirichlet Processes. (**Best Student Paper Award**)  
In *Proceedings of the Thirteenth Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD 2009)*, Bangkok, Thailand, Pages 278-289.
11. Qian Xu, **Derek Hao Hu**, Hong Xue and Qiang Yang.  
Semi-supervised Protein Subcellular Localization.  
In *Proceedings of the Seventh Asia Pacific Bioinformatics Conference (APBC 2009)*, Beijing, China, Pages 537-547.
12. **Derek Hao Hu**, Qiang Yang.  
CIGAR: Concurrent and Interleaving Goal and Activity Recognition.  
In *Proceedings of the 23rd AAAI Conference on Artificial Intelligence (AAAI 2008)*, Chicago, Illinois, USA, Pages 1363-1368.
13. **Derek Hao Hu**, Sinno Jialin Pan, Vincent Wenchen Zheng, Nathan Nan Liu, Qiang Yang.  
Real World Activity Recognition with Multiple Goals.  
In *Proceedings of the Tenth International Conference on Ubiquitous Computing (UbiComp 2008)*, Seoul, Korea, Pages 30-40.
14. Hankui Zhuo, Qiang Yang, **Derek Hao Hu**, Lei Li.  
Transferring Knowledge from Another Domain for Learning Action Models.  
In *Proceedings of the Tenth Pacific Rim International Conference on Artificial Intelligence (PRICAI 2008)*, Hanoi, Vietnam, Pages 1110-1115.

### Teaching Services

- Fall 2007, Teaching Assistant for COMP221, Fundamentals of Artificial Intelligence
- Spring 2008, Teaching Assistant for COMP361, Computer Graphics
- Spring 2009, Teaching Assistant for COMP300E, Programming Challenges

- Fall 2009 to 2010, Teaching Assistant Coordinator
- Fall 2009 to Now, Postgraduate Coach of HKUST ACM/ICPC Programming Contest Team
- Fall 2009 to 2010, TA for Final Year Project: Lego Robots Guided by WiFi Devices.
- Fall 2010 to 2011, TA for Final Year Project: gPhone-based Activity Recommendation from GPS Data

### Professional Services

- AAAI Member, ACM Member.
- Program Committee Member for CIKM 2009, IUI 2009, KDD 2011.
- Reviewer for JMLR, TKDE, TKDD, TIST, IEEE Intelligent Systems.

### Selected Honors

- Microsoft Research Fellowship, 2009
- HKUST Research Travel Grant, 2008 and 2009
- IJCAI 2009 Travel Grant Award
- AAAI 2008 Student Travel Award
- Excellent Graduate of Nanjing University, 2007
- IBM Scholarship, 2006
- China Computer World Scholarship, 2005

### Selected Contest Awards

- November 2011, acm/icpc Asia Regional Contest, Phuket Site, The Fourth Place (As Team Coach)
- December 2010, acm/icpc Asia Regional Contest, Kuala Lumpur Site, The Third Place (As Team Coach)
- November 2010, acm/icpc Asia Regional Contest, Hanoi Site, The Third Place (As Team Coach)
- November 2009, acm/icpc Asia Regional Contest, Seoul Site, The Third Place
- October 2009, acm/icpc Asia Regional Contest, Manila Site, The Fourth Place (As Team Coach)
- December 2008, TopCoder China Tournament, The Tenth Place
- April 2008, HKUST Programming Contest, Champion
- November 2007, acm/icpc Asia Regional Contest, Danang Site, The Fourth Place
- November 2007, acm/icpc Asia Regional Contest, Seoul Site, The Fourth Place
- November 2007, TopCoder College Tour, HKUST Site, Champion
- October 2007, HKUST Programming Contest, Champion
- June 2006, 2006 National English Contest for College Students, Outstanding Award
- November 2005, acm/icpc Asia Regional Contest, Beijing Site, The Seventh Place
- July 2004, The Fifth National English Debate Contest for College Students, First Prize, Best Debater
- June 2004, 2004 National English Contest for College Students, Outstanding Award

### Skills

- Languages: Mandarin(native), English(fluent)
- Computer Skills: C, C++, C#,  $\LaTeX$