

Wang-Zhou Dai 戴望州

PH.D.

RESEARCH ASSOCIATE @ DEPARTMENT OF COMPUTING, IMPERIAL COLLEGE LONDON

22/05/1990

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“「知行合一」(The unity of Inner knowledge and action.) [明·王守仁] (Ming Dynasty, Shou-Jen Wang.)”

Career

Department of Computing, Imperial College London

London, UK

RESEARCH ASSOCIATE

Apr. 2019 –

- Employed as the major researcher in machine learning for the EPSRC project *A semi-autonomous robot synthetic biologist for industrial biodesign and manufacturing.*

Education

Nanjing University

Nanjing, China

PH.D. CANDIDATE IN COMPUTER SCIENCE, SUPERVISED BY PROF. ZHI-HUA ZHOU

Sep. 2012 – Mar. 2019

Nanjing University

Nanjing, China

M.SC. CANDIDATE IN COMPUTER SCIENCE, SUPERVISED BY PROF. ZHI-HUA ZHOU

Sep. 2010 – Jun. 2012

- Finished 3-year program in 2 years, enrolled as doctorate student one year ahead.

Northwestern Polytechnical University

Xi'an, China

B.SC. IN APPLIED MATHEMATICS

Sep. 2006 – Jun. 2010

- Graduated with the highest honor.

Skills

Programming C, C++, Prolog, Matlab, Python, Julia, JAVA, Lisp, LaTeX.

WebDevs HTML5, CSS, Javascript, Django, Express.

Languages Chinese and English.

Experience

Imperial College London

London, UK

VISITING STUDENT

Dec. 2016 - Jan. 2017

- Visited Prof. Stephen H. Muggleton's group.
- Worked on Logical Vision and published a paper on ILP'17.
- Supported by RAEng Newton Collaborative Research Programme.

Imperial College London

London, UK

VISITING STUDENT

Sep. 2014 - Dec. 2014

- Visited Prof. Stephen H. Muggleton's group.
- Worked on the integration of statistical machine learning & inductive logic programming and published a paper on ILP'15.
- Supported by Tentative Visit Program of Nanjing University.

Baidu Inc.

Beijing, China

R & D INTERN

Apr. 2013 - Jan. 2014

- Worked on semantic parsing of search engine queries and published a paper on ACML'15.

Services

PC Member AAAI' 19, IJCAI'19, ICML'19, PAKDD' 19.

Reviewer NIPS' 16, ICPR' 16, IEEE ICTAI' 16, ICML' 17, ACML'17, NIPS' 17, IJCAI' 18, NIPS' 18.

Publications

1. **Wang-Zhou Dai**, Qiu-Ling Xu, Yang Yu, and Zhi-Hua Zhou. Bridging machine learning and logical reasoning by abductive learning. Advances in Neural Information Processing Systems 32 (NeurIPS'19). In Press. *Vancouver, Canada, 2018.*
2. Stephen H. Muggleton, **Wang-Zhou Dai**, Claude Sammut, Alireza Tamaddoni-Nezhad, Jing Wen, and Zhi-Hua Zhou. Meta-interpretive learning from noisy images. *Machine Learning*. 107(7): 749-766, 2018.
3. **Wang-Zhou Dai**, Stephen H. Muggleton, Jing Wen, Alireza Tamaddoni-Nezhad and Zhi-Hua Zhou. Logical vision: One-Shot Meta-Interpretive Learning on Real Images. In Proceedings of the 27th International Conference on Inductive Logic Programming (ILP' 17). *Orleans, France, 2017.*
4. **Wang-Zhou Dai**, and Zhi-Hua Zhou. Combining Logical Abduction and Statistical Induction: Discovering Written Primitives with Human Knowledge. In Proceedings of the 31st AAAI Conference on Artificial Intelligence (AAAI' 17). *San Francisco, CA, 2017.*
5. **Wang-Zhou Dai**, Stephen H. Muggleton, and Zhi-Hua Zhou. Logical vision: Meta-interpretive learning for simple geometrical concepts. In Late Breaking Paper Proceedings of the 25th International Conference on Inductive Logic Programming (ILP' 15), CEUR. *Kyoto, Japan, 2015.*
6. **Wang-Zhou Dai**, and Zhi-Hua Zhou. Statistical unfolded logic learning. In Proceedings of the 7th Asian Conference on Machine Learning (ACML' 15). *Hong Kong, China, 2015.*
7. **Wang-Zhou Dai**, Yang Yu, and Zhi-Hua Zhou. Lifted-rollout for approximate policy iteration of Markov decision process. In Proceedings of the International Workshop on Learning and Data Mining for Robotics (LEMIR' 11), in conjunction with ICDM' 11. *Vancouver, Canada, 2011.*

Projects (participated)

1. **A Semi-Autonomous Robot Synthetic Biologist for Industrial Biodesign and Manufacturing**, EPSRC, (EP/R034915/1).
2. **Big Data Analysis Theory and Technology**, National Key Research and Development Plan, Ministry of Science and Technology China (2018YFB1004300).
3. **Integrating Probabilistic and Statistical and Logical Mechanisms for Machine Learning**, Newton Collaborative Research Programme, Royal Academy of Engineering, UK (NRCP/1415/133).
4. **Machine Learning in Open and Dynamic Environments**, National Science Foundation of China (61333014).

Honors & Awards

2016	IBM Ph.D. Fellowship award , IBM	<i>US</i>
2015	The Doctoral Enhancement Program , Nanjing University	<i>China</i>
2012	Google Excellence Scholarship , Google, Inc.	<i>China</i>
2012	Outstanding graduated student , Nanjing University	<i>China</i>
2010	Outstanding undergraduate thesis award , School of Science, Northwestern Polytechnic University	<i>China</i>