

Jin Yu

Statistical Machine Learning
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RESEARCH INTERESTS

Stochastic (online) learning and nonsmooth optimization for machine learning.

EDUCATION

Australian National University (ANU), Canberra, Australia

Ph.D., Information Sciences & Engineering, Mar. 2006 – Sep. 2009 (expected)
(Visiting Scholar at Purdue University, USA from Jan.-Apr. 2009)

- Dissertation: “New Quasi-Newton Optimization Methods for Machine Learning”
- Chair of Panel: Jochen Trunpf, Supervisor: S. V. N. Vishwanathan, Advisor: Knut Hüper

Katholieke Universiteit Leuven (KUL), Leuven, Belgium

Master in Artificial Intelligence, Sep. 2003 – Jul. 2004

- Emphasis: Engineering and Computer Science
- Thesis: “Visualizing Swarm Algorithms ”
- Graduated Magna Cum Laude (High Distinction)

Civil Aviation University of China (CAUC), Tianjin, China

Bachelor of Engineering, Sep. 1996 – Sep. 2000

- Major: Electrical Engineering
- Graduated Highest Grade in Class

HONORS AND AWARDS

Vice-Chancellor Cross-Institutional Visit Grant	2009
Vice-Chancellor Conference Travel Grant	2008
ICML 2008 Conference Travel Award	2008
ANU-NICTA Full PhD Scholarship	2006 – 2009
Technical Innovation Award, Beijing Capital International Airport Co. Ltd.	2002
Excellent Undergraduate Scholarship, Tianjin City Education Committee (This scholarship was awarded to the top two students at CAUC in that year.)	1999
First-class Undergraduate Scholarship, CAUC, Tianjin, China	1997 – 2000

PUBLICATIONS

- [1] Jin Yu, S. V. N. Vishwanathan, and Jian Zhang. The entire quantile path of a risk-agnostic svm classifier. To appear at the Conference on Uncertainty in Artificial Intelligence, 2009.
- [2] Jin Yu, S. V. N. Vishwanathan, Simon Günter, and Nicol N. Schraudolph. A quasi-Newton approach to nonsmooth convex optimization. Submitted to Journal of Machine Learning Research, first revision under preparation, 2008.
- [3] Jin Yu, S. V. N. Vishwanathan, Simon Günter, and Nicol N. Schraudolph. A quasi-Newton approach to nonsmooth convex optimization. In Andrew McCallum and Sam Roweis, editors, *Proc. Intl. Conf. Machine Learning*, pages 1216–1223. Omnipress, 2008. (26.5% acceptance rate).
- [4] Nicol N. Schraudolph, Jin Yu, and Simon Günter. A stochastic quasi-Newton method for online convex optimization. In *Proc. 11th Intl. Conf. Artificial Intelligence and Statistics (AISTATS)*, San Juan, Puerto Rico, March 2007. Society for Artificial Intelligence and Statistics. (50% acceptance rate).
- [5] Silvia Richter, Douglas Aberdeen, and Jin Yu. Natural actor-critic for road traffic optimization. In B. Schölkopf, J. Platt, and T. Hofmann, editors, *Advances in Neural Information Processing Systems 19*, Cambridge, MA, 2007. MIT Press. (22% acceptance rate).
- [6] Nicol N. Schraudolph, Jin Yu, and Douglas Aberdeen. Fast online policy gradient learning with SMD gain vector adaptation. In Y. Weiss, B. Schölkopf, and J. Platt, editors, *Advances in Neural Information Processing Systems 18*, Cambridge, MA, 2006. MIT Press. (27.5% acceptance rate).

TALKS

- [1] A new quasi-Newton method for nonsmooth optimization. Presented at Machine Learning Seminar, Purdue University, USA, January 2009.
- [2] Online limited-memory quasi-Newton training of support vector machines. Presented at Snowbird, San Juan, Puerto Rico, March 2007.

EXPERIENCE

Purdue University, USA*Visiting Scholar***Jan. – Apr. 2009**

Worked with Prof. S.V.N. Vishwanathan and Prof. Jian Zhang to develop optimization algorithms to find the solution path of quantile regression and quantile classification problems.

National ICT Australia (NICTA), Canberra Laboratory, Australia*Visiting Scholar***Apr. – Jul. 2005, Sep. – Dec. 2005**

Worked with Dr. Nicol N. Schraudolph on the Advanced Nonlinear Gradient Methods project.

Self-employed, China*Freelance Software Engineer***Aug. 2004 – Apr. 2005**

Developed the database interface for Honeywell's Visual Docking Guidance System for Guangzhou Baiyun international airport, China.

Beijing Capital International Airport Co. Ltd., Beijing, China*Software Engineer***Sep. 2000 – Aug. 2003**

- Developed the Real-time Ground Information Virtual Reality System.
- Developed network communication DLLs for the Baggage Carousel Allocation and the Airport Traffic Control systems.

COMPUTER SKILLS

- Programming Languages: C/C++, Java, Python, Matlab.
- Operating Systems: Windows, Unix, MacOS.

REFERENCE**Prof. S.V.N. Vishwanathan**

**Assistant Professor of Statistics, Assistant Professor of Computer Science,
Purdue University**

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