Yunsong Guo

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Education

Phd Candidate, Department of Computer Science, Cornell University *08/2005 – present*

- Expertise in machine learning and combinatorial optimization
- 18 refereed international conference and journal publications; Current GPA: 3.96/4;
- Full scholarship for the duration of study; expected graduation date: 05/2010

Bachelor of Computing, Department of Computer Science, National University of Singapore *07/01–07/05*

- First Class Honors, with Minor in Mathematics. Name placed in Dean's List for all four academic years.
- GPA: 4.9/5.0 (1/700+), winner of the Presidential Gold Medal, awarded to the best undergraduate with the highest GPA in the School of Computing
  (*ref.* http://www.comp.nus.edu.sg/undergradprog/hroll/hroll_list1.htm)

Chengdu Number 7 Middle School, **Chengdu, Sichuan, China** *09/1995 - 11/2000*

- Nationwide First Prizes in the National Olympiads in Informatics (Computer Programming Contest), and Physics

Experiences

Goldman Sachs International (London, UK)

Summer Associate Strategist, Equities Division, GSAT (Goldman Sachs Algorithmic Trading) Desk *Jun19 – Sep4, 2009*

- *Duties:* Constructed a human-interpretable machine learning model from large scale data mining analysis, to predict the most efficient venue for smart multi-venue order placement, with very high out-sample accuracy based on multiple numerical evaluation metrics; Improved the functional form of the most contemporary transaction cost prediction model, so that simpler and faster optimization becomes practical, while maintaining the same level of or better prediction accuracy compared with other more complex models.

Summer Associate Strategist, Equities Division, GSAT (Goldman Sachs Algorithmic Trading) Desk *Jun16 – Aug22, 2008*

- *Duties:* Statistically compared the performance of two main trading algorithms; calibrated and improved key cost prediction model parameters; explored the use of state-of-the-art machine learning models to estimate that trading cost.

Yahoo! Inc (Santa Clara, CA, USA)

Research Internship at the Search Marketing (Applied Research) Division *May15 - Aug10, 2007*

- Duties: Developed a new Machine Learning model to predict publishers' quality in sponsored search advertising, outperforming multiple competitive models.

Programming and Language Skills

C/C++/Java: advanced Slang/R/Matlab/Unix/Linux: familiar
English: fluent in writing and speaking Chinese: native speaker

Selected Academic Publications

The full list of publications is available at http://www.cs.cornell.edu/~guoys

1. Yunsong Guo, Carla Gomes, Learning optimal subsets with implicit user preferences, *The 21st International Joint Conference on Artificial Intelligence (IJCAI), 2009*
2. Yunsong Guo, Carla Gomes, Ranking structured documents: a large margin based approach for patent prior art search, *The 21st International Joint Conference on Artificial Intelligence (IJCAI), 2009*
3. Nam Nguyen, Yunsong Guo, "Metric Learning: A Support Vector Machine Approach", *The 18th European Conference on Machine Learning* (ECML), 2008
4. Yunsong Guo, Yanzhi Li, Andrew Lim, Brian Rodrigues, "*Tariff Concessions in Production Sourcing*", European Journal on Operational Research (EJOR), 187(2), 2008
5. Nam Nguyen, Yunsong Guo, "*Comparison of Sequence Labeling Algorithms and Extensions*", The *24th International Conference on Machine Learning* (ICML), 2007
6. Yunsong Guo, Bart Selman, "ExOpaque: A Framework to Explain Opaque Machine Learning Models Using Inductive Logic Programming", The *19th IEEE International Conference on Tools with Artificial Intelligence* (ICTAI), 2007
7. Yunsong Guo, Andrew Lim, Brian Rodrigues and Yi Zhu, "Carrier Assignment Models In Transportation Procurement", Journal of Operations Research Society (JORS), 57, 2006
8. Yunsong Guo, Andrew Lim, Brian Rodrigues and Jiqing Tang, " Using A Lagrangian Heuristic For A Combinatorial Auction Problem", *17th International Conference on Tools with Artificial Intelligence (ICTAI),* 2005
9. Yunsong Guo, Andrew Lim, Brian Rodrigues and Yi Zhu, "Heuristics for a Brokering Set Packing Problem", *8th International Symposium on Artificial Intelligence and Mathematics (AIMA), 2004*

Selected Honors & Prizes

- Presidential Gold Medal for highest undergraduate GPA (1/700+), *07/2005*
- Two times (maximum possible) ACM International Collegiate Programming Contest (ICPC), World Finalist:
  29th World Finals, Shangri-la Hotel, Shanghai, China *04/2005*
  27th World Finals, Beverly Hills, California, USA *04/2003*
- National Computer System Book Prize, for the best year 3 undergraduate with highest GPA in the Computer Science Department *04/2004*
- 1st place in ACM Asia International Collegiate Programming Regional Contest, IIT Kanpur site, India *12/04*
- 2nd place in ACM Asia International Collegiate Programming Regional Contest, Kaohsiung, Taiwan *11/02*