

JIANG CHEN

Center for Computational Learning Systems *Phone:* +1 (917) 512-6214
Columbia University *Email:* criver@cs.columbia.edu
Interchurch Center *Web page:* <http://www1.ccls.columbia.edu/~criver>
475 Riverside Dr. MC 7717
New York, NY 10115

EDUCATION

09/2001-05/2006 Yale University, New Haven, CT
Ph.D. in Department of Computer Science
Thesis: **Learning via Queries**. Advisor: Dana Angluin.
09/1997-07/2001 Tsinghua University, Beijing, P.R.China
B.E. in Department of Computer Science
Thesis: **Techniques in TsinghuAeolus** (in Chinese).

RESEARCH INTERESTS

Machine learning theory and application with the emphasis on active learning. Especially on active learning problems motivated by biological experimental design.

Algorithms and computational theory in general.

Overlay and P2P networks.

PROFESSIONAL EXPERIENCE

08/2006-present **Associate Research Scientist**, Center for Computational Learning Systems, Columbia University.
Research on improving Con Edison's power grid using machine learnig.
08/2002-05/2006 **Research Assistant**, Computer Science Department, Yale University.
Research on theoretical machine learning. Mostly on biology motivated active learning problems.
09/2002-12/2004 **Teaching Assistant**, Computer Science Department, Yale University.
05/2002-08/2002 **Research Assistant**, Computer Science Department, Yale University.
Research on the incentive issues in computer networks.
04/2000-07/2001 **Chief Designer and Developer**, Tsinghua University RoboCup Team, affiliated with the State Key Lab of Intelligent Technology and Systems in China.
Our team, named TsinghuAeolus, won the RoboCup 2001 Tournament Simulation League.

PUBLICATIONS

JOURNAL PAPERS

Learning Large-alphabet and Analog Circuits with Value Injection Queries.

Dana Angluin, James Aspnes, Jiang Chen, and Lev Reyzin..

Invited and accepted to Journal of Machine Learning 2007 Special Issue on Learning Theory.

Learning a Circuit by Injecting Values.

Dana Angluin, James Aspnes, Jiang Chen, and Yinghua Wu

Invited and accepted to Journal of Computer Science and System 2006 Special Issue on Learning Theory.

Learning a Hidden Hypergraph.

Dana Angluin and Jiang Chen.

Journal of Machine Learning Research. Volume 7, pages 2215--2236, December 2006.

Learning a Hidden Graph Using $O(\log n)$ Queries per Edge.

Dana Angluin and Jiang Chen.

Journal of Computer and System Sciences. In Press.

Design and Implementation of Tsinghua Robotic Soccer Team (in Chinese).

Shi Li and Jiang Chen.

Journal of Tsinghua University (Science and Technology), Volume 41, Issue 7, pages 94--97, 2001

CONFERENCE PAPERS

Dynamic Structures for Top-k Queries on Uncertain Data.

Jiang Chen and Ke Yi.

In Proceedings of the 18th International Symposium on Algorithms and Computation (ISAAC 2007), December 2007, pages 427-438.

Learning Large-alphabet and Analog Circuits with Value Injection Queries.

Dana Angluin, James Aspnes, Jiang Chen, and Lev Reyzin.

In Proceedings of the 20th Annual Conference on Learning Theory (COLT), June 2007, pages 51--65.

Learning a Circuit by Injecting Values.

Dana Angluin, James Aspnes, Jiang Chen, and Yinghua Wu.

In Proceedings of the 38th ACM Symposium on Theory of Computing (STOC), May 2006, pages 584--593.

Fast Construction of Overlay Networks.

Dana Angluin, James Aspnes, Jiang Chen, Yinghua Wu, and Yitong Yin.

In Proceedings of the 17th ACM Symposium on Parallelism in Algorithms and Architectures (SPAA), July 2005, pages 145--154.

Learning a Hidden Hypergraph.

Dana Angluin and Jiang Chen.

In Proceedings of the 18th Annual Conference on Learning Theory (COLT), June 2005, pages 561--575.

Learning a Hidden Graph Using $O(\log n)$ Queries per Edge.

Dana Angluin and Jiang Chen.

In Proceedings of the 17th Annual Conference on Learning Theory (COLT), June 2004, pages 210--223.

Overlay Mesh Construction Using Interleaved Spanning Trees.

Anthony Young, Jiang Chen, Zheng Ma, Arvind Krishnamurthy, Larry Peterson and Randy Wang.

In Proceedings of the 23rd Annual Joint Conference of the IEEE Computer and Communications Societies (INFOCOM), March 2004, pages 396--407.

Sprite: A Simple, Cheat-Proof, Credit-Based System for Mobile Ad-Hoc Networks.

Sheng Zhong, Jiang Chen and Yang Richard Yang.

In Proceedings of the 22nd Annual Joint Conference of the IEEE Computer and Communications Societies (INFOCOM), March 2003, pages 1987--1997.

An application in RoboCup combining Q-learning with Adversarial Planning (in Chinese).

Jinyi Yao, Jiang Chen, and Zengqi Sun.

In Proceedings of the World Congress on Intelligent Control and Automation (WCICA), June, 2002, pages 496--500.

Global Planning from Local Eycshot: An Implementation of Observation-Based Plan Coordination in RoboCup Simulation Game.

Yupen Cai, Jiang Chen, Jinyi Yao and Shi Li.

In Proceedings of the 5th RoboCup Competitions and Conferences, August 2001, pages 12--21.

Architecture of TsinghuAeolus.

Jinyi Yao, Jiang Chen, Yupeng Cai and Shi Li.

In Proceedings of the 5th RoboCup Competitions and Conferences, August 2001, pages 491--494.

WORKSHOP PAPERS

Optimal Capacity Sharing of Network with Multiple Overlays.

Zheng Ma, Jiang Chen, Yang Richard Yang, Arvind Krishnamurthy.

In Proceedings of the 14th IEEE International Workshop on Quality of Service (IWQoS), June 2006, pages 72--81.

EXTERNAL PRESENTATIONS

07/02/2004 "Learning a Hidden Graph Using $O(\log n)$ Queries per Edge", COLT 2004, Banff, Alberta, Canada

04/2006--
06/2006 "Learning via Queries", Columbia University, Boston University, Yahoo! Inc

05/23/2006 "Learning a Circuit by Injecting Values", STOC 2006, Seattle, WA

PROFESSIONAL SERVICES

Reviewers for Machine Learning Journal, Algorithmic Learning Theory (ALT), Computer Networks Journal, The Annual ACM Symposium on Theory of Computing (STOC), International Conference of Machine Learning (ICML).

HONORS AND AWARDS

04/2006 Student Travel Awards of STOC 2006.

05/2001-05/2006 Graduate Fellowship, Yale University.

08/2001 Champion of RoboCup 2001 Tournament Simulation League.

04/2000 Meritorious Winner in the 2000 Mathematical Contest in Modeling (MCM'2000).

07/2000 Champion of China RoboCup 2000 Tournament Simulation League.