

Samuel Jeong

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RESEARCH INTEREST

Artificial intelligence, Information retrieval, Decision theory, Algorithmic game theory, Machine learning.

EDUCATION

- **Stanford University**, Stanford, CA
 - PhD Computer Science, June 2008
 - Advisor: Prof. Yoav Shoham
 - Thesis: *Cooperation in Competition: Efficiently Representing and Reasoning about Coalitional Games*
- **Yale University**, New Haven, CT
 - BS Computer Science and Economics, May 2000
 - MS Computer Science, May 2000
 - Advisors: Prof. John Geanakoplos (Econ) and Prof. Ming-Yang Kao (CS)
 - Graduated Summa Cum Laude, Distinctions in both majors, GPA: 3.97/4.00

WORK EXPERIENCE

- **Summer Associate, Clarium Capital Management**, San Francisco, CA (Spring 2008)
Research & Engineering
 - Conducted market factor analysis and macroeconomic studies, applying machine learning techniques and optimization to find systematic trends in financial instruments under different market conditions
- **Summer Intern, Microsoft Research**, Mountain View, CA (Summer 2007)
Internet Services Research Center (ISRC)
 - Conducted research on search relevance improvements, including new theoretical models of information retrieval, machine learning algorithm tuning, and performance metrics
- **Research Assistant, Stanford University**, Stanford, CA (2002 – 2008)
Stanford Graduate Fellow
 - Conducted research on game representations and reasoning, mechanism design, and planning under the supervision of Prof. Yoav Shoham (2003 – 2008)
 - Conducted research on protein structure and motion prediction, and robotics motion planning under the supervision of Prof. Jean-Claude Latombe (2002 – 2003)

- **Investment Banking Analyst, Morgan Stanley**, London, UK & Hong Kong (2000 – 2002)
Mergers & Acquisitions Department
 - Diverse industry experience that includes energy companies (exploration, refining, and power), financial institutions, telecommunication and media companies, and transportation companies
 - Transaction highlights include:
 - Joint venture negotiations on behalf of a middle east government
 - Sale of telecommunication assets of a major conglomerate in Southeast Asia
 - Advisory on optimal financing strategy of a major media player in Asia
- **Derivatives Analyst, Ellington Management LLC**, Old Greenwich, CT (Summer 1999)
 - Implemented and evaluated different randomized algorithms for the valuation of non-tractable options in the context of mortgage-backed securities
 - Helped design and implement an algorithm for selecting hedging instruments

TEACHING EXPERIENCE

- **Teaching Assistant, Stanford University**, Stanford, CA
 - Machine Learning (Fall 2006)
 - Multi Agent Systems (Winter 2007)
- **Teaching Assistant, Yale University**, New Haven, CT
 - Design and Analysis of Algorithms (Spring 1999)

HONORS AND AWARDS

- Stanford Graduate Fellowship, awarded annually to approximately 100 incoming graduate students in engineering, natural science, and social science (2002)
- Russell Henry Chittenden Prize, awarded annually to the undergraduate majoring in the natural sciences or in mathematics who ranks highest in scholarship, Yale University (2000)
- Computer Science Departmental Prize, Yale University (2000)
- Economics Departmental Prize, Louis F. Laun Award, Yale University (2000)
- Elected into Phi Beta Kappa, national undergraduate honor organization (1999)
- Elected into Tau Beta Pi, national engineering honor society (1998)
- Sir Edward Youde Memorial Scholarship for Overseas Studies, awarded annually to between three to five students in Hong Kong for academic and extracurricular achievements (1996)
- Hong Kong Outstanding Student Award (1995)

PROFESSIONAL ACTIVITIES

- Organizer
 - Biocomputation at Stanford (BCATS) 2003

- Program Committee
 - National Conference on Artificial Intelligence (AAAI) 2007, 2008
 - Conference on Autonomous Agents and Multiagent Systems (AAMAS) 2008
 - Conference on Uncertainty in Artificial Intelligence (UAI) 2008
 - Workshop on Advances in Preference Handling (MPREF) 2008
- Journal Reviews
 - Artificial Intelligence
 - Games and Economic Behavior
 - IEEE Journal on Selected Areas in Communication
 - Journal of Artificial Intelligence Research
 - Journal of Autonomous Agents and Multi-Agent Systems
- Conference Reviews
 - ACM Conference on Electronic Commerce (EC) 2005, 2006
 - National Conference on Artificial Intelligence (AAAI) 2006
 - International Conference on Principles of Knowledge Representation and Reasoning (KR) 2006
 - International Joint Conference on Artificial Intelligence (IJCAI) 2007
- PhD Admissions Committee, Computer Science Department, Stanford University, 2005.

INVITED TALKS

- “Computer Science and Game Theory: Solving Problems in a Selfish World.” Computer Science and Engineering (CSE) Seminar, Hong Kong University of Science and Technology. Hong Kong. Jun 2008.
- “Bayesian Coalitional Games.” Game Theory Seminar, Stanford University. Stanford, CA. May 2008.
- “Mechanism Design for Stochastic Optimization Problems.” Systems Engineering and Engineering Management (SEEM) Seminar, Chinese University of Hong Kong. Hong Kong. Jan 2008.
- “Mechanism Design for Stochastic Optimization Problems.” INFORMS Annual Meeting. Seattle, WA. Nov 2007.
- “Coalitional Game Theory from a Computer Science Perspective.” Game Theory and Decision Theory Seminar, University of British Columbia. Vancouver, Canada. Oct 2007.
- “Mechanism Design for Stochastic Optimization Problems.” Dagstuhl seminar on Computational Social Systems and the Internet. Dagstuhl, Germany. Jul 2007.
- “Mechanism Design for Stochastic Optimization Problems.” Game Theory Seminar, Stanford University. Stanford, CA. Apr 2007.

PUBLICATIONS

- [1] Atish Das Sarma, Sreenivas Gollapudi, Samuel Yeong. "Bypass Rates: Reducing Query Abandonment using Negative Inferences." *ACM Conference on Knowledge Discovery and Data Mining (KDD)* 2008: to appear. 2008.
- [2] Samuel Yeong, Yoav Shoham. "Bayesian Coalitional Games." *National Conference on Artificial Intelligence (AAAI)* 2008: to appear. 2008.
- [3] Samuel Yeong, Anthony Man-Cho So, Mukund Sundararajan. "Mechanism Design for Stochastic Optimization Problems." *Workshop on Internet and Network Economics (WINE)* 2007: 269-280. 2007.
 - Announcement appeared in SIGecom Exchanges, December 2007
- [4] Samuel Yeong, Nicolas Lambert, Yoav Shoham, Ronen Brafman. "Near-Optimal Planning in Continuous Domains." *National Conference on Artificial Intelligence (AAAI)* 2007: 1158-1163. 2007.
- [5] Samuel Yeong, Yoav Shoham. "Multi-Attribute Coalitional Games." *ACM Conference on Electronic Commerce (EC)* 2006: 170-179. 2006.
- [6] Samuel Yeong, Bob McGrew, Eugene Nudelman, Yoav Shoham, Qixiang Sun. "Fast and Compact: A Simple Class of Congestion Games." *National Conference on Artificial Intelligence (AAAI)* 2005: 489-494. 2005.
- [7] Samuel Yeong, Yoav Shoham. "Marginal Contribution Nets: A Compact Representation Scheme for Coalitional Games." *ACM Conference on Electronic Commerce (EC)* 2005, 193-202. 2005.
- [8] Samuel Yeong, Ming-Yang Kao, Tak-Wah Lam, Wing-Kin Sung, Siu-Ming Yiu. "Predicting RNA Secondary Structures with Arbitrary Pseudoknots by Maximizing the Number of Stacking Pairs." *Journal of Computational Biology* 10(6): 981-995. 2003.
 - Appeared earlier in *IEEE Symposium on Bioinformatics and Bioengineering* 2001: 183-190. 2001.

REFERENCES

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