

Victor Naroditskiy

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Citizenship: USA

RESEARCH INTERESTS

Mechanism Design, Computational Game Theory, Sponsored Search Auctions, Autonomous Trading Agents

EDUCATION

Brown University, Providence, RI 2003-present

Ph.D. Candidate in Computer Science, June 2009 (expected)

Thesis: *Select Problems at the Intersection of Computer Science and Economics*

Advisor: Amy Greenwald

Brown University, Providence, RI 2003-2005

Sc.M. Computer Science

Master's Thesis: *Building a successful TAC SCM Agent. Stochastic Scheduling Problem*

Advisor: Amy Greenwald

Bryant University, Smithfield, RI 1999-2002

B.S. Computer Information Systems, Finance

RESEARCH

Research Assistant, Brown University 2003-present

Research topics: Mechanism Design, Computational Game Theory, Trading Agent Competition (Travel and SCM divisions), Bidding in Simultaneous Auctions

Research Intern, HP Labs, Palo Alto, CA June 2007-August 2007

(part-time: June 2008-December 2008)

Research topics: bidding in sponsored search auctions, bidding agent design

TEACHING

Instructor, Brown University

Design of Agents for Bidding in Sponsored Search Auctions 2009

Teaching Assistant, Brown University

Probabilistic Methods in Computer Science 2006, 2008

Introduction to Combinatorial Optimization 2007

Guest Lectures, Brown University

Game-Theoretic Artificial Intelligence Spring 2008

minimax, introduction to linear programming, introduction to mechanism design

CONFERENCE PAPERS AND POSTERS

de Clippel, G.; Naroditskiy, V.; and Greenwald, A. *Destroy to Save*. In the 10th ACM Conference on Electronic Commerce, July 2009

Zhou, Y. and Naroditskiy, V. *An Algorithm for Stochastic Multiple-Choice Knapsack Problem and Application to Keywords Bidding*. In the 17th International World Wide Web Conference, April 2008 (2-page poster)

Naroditskiy, V. and Greenwald, A. *Using Iterated Best-Response to Find Bayes-Nash Equilibria in Auctions*. In the 22nd Conference on Artificial Intelligence, July 2007 (2-page poster)

Lee, S.; Greenwald, A.; and Naroditskiy, V. *RoxyBot-06: An SAA² TAC Travel Agent*. In the 20th International Joint Conference on Artificial Intelligence, Jan 2007

Benisch, M.; Greenwald, A.; Grypari, I.; Lederman, R.; Naroditskiy, V.; and Tschantz, M. *Botticelli: A Supply Chain Management Agent*. In the 3rd International Joint Conference on Autonomous Agents and Multi-Agent Systems, July 2004

Benisch, M.; Greenwald, A.; Naroditskiy, V.; and Tschantz, M. *A Stochastic Programming Approach to Scheduling in TAC SCM*. In the 5th ACM Conference on Electronic Commerce, May 2004

WORKSHOP PAPERS

Greenwald, A.; Lee, S.; and Naroditskiy, V. *Bidding Heuristics for Simultaneous Auctions: Lessons from TAC Travel*. In Workshop on Trading Agent Design and Analysis at the 23rd Conference on Artificial Intelligence, June 2008

Odean, T.; Naroditskiy, V.; Greenwald, A.; and Donaldson, J. *Marginal Bidding: An Application of the Equimarginal Principle to Bidding in TAC SCM*. In Workshop on Trading Agent Design and Analysis at the 22nd Conference on Artificial Intelligence, July 2007

Greenwald, A.; Guillemette B.; Naroditskiy V.; and Tschantz M. *Scaling Up the Sample Average Approximation Method for Stochastic Optimization with Applications to Trading Agents*. In Workshop on Trading Agent Design and Analysis at the 19th International Joint Conference on Artificial Intelligence, August 2005

EDITED VOLUME CHAPTERS

Greenwald, A.; Naroditskiy, V.; Odean, T.; Ramirez, M.; Sodomka, E.; Zimmerman, J.; and Cutler, C. *Marginal Bidding: An Application of the Equimarginal Principle to Bidding in TAC SCM*. In Edited volume on Agent-Mediated Electronic Commerce and Trading Agent Design and Analysis, Lecture Notes in Business Information Processing , Vol. 13, Collins, J.; Faratin, P.; Parsons, S.; Rodriguez-Aguilar, J.A.; Sadeh, N.M.; Shehory, O.; Sklar, E. (Eds.), Springer, 2009

Greenwald, A.; Guillemette B.; Naroditskiy V.; and Tschantz M. *Scaling Up the Sample Average Approximation Method for Stochastic Optimization with Applications to Trading Agents*. In Edited volume on Agent-Mediated Electronic Commerce. Designing Trading Agents and Mechanisms, Poutre, H. L.; Sadeh, N.; and Janson, S. (Eds.), Springer, 2006

INVITED TALKS

Yahoo! Research New York 2008. *An Algorithm for Online Multiple Choice Knapsack Problem and Keyword Bidding*

Brown University, Department of Computer Science, Theory Lunch, December 2007. *Using Iterated Best-Response to Find Bayesian Nash Equilibria In Auctions*

Brown University, Department of Economics, Theory Lunch, October 2007. *Using Iterated Best-Response to Find Bayesian Nash Equilibria In Auctions*

INFORMS Annual Meeting, November 2006. *Botticelli 2006: A TAC SCM Agent*

CONFERENCE AND WORKSHOP TALKS

International Conference on Game Theory, *Destroy to Save*, July 2009

The 10th ACM Conference on Electronic Commerce, *Destroy to Save*, July 2009

Workshop on Trading Agent Design and Analysis at the 23rd Conference on Artificial Intelligence, *Bidding Heuristics for Simultaneous Auctions: Lessons from TAC Travel*, June 2008

Workshop on Trading Agent Design and Analysis at the 22nd Conference on Artificial Intelligence, *Marginal Bidding: An Application of the Equimarginal Principle to Bidding in TAC SCM*, July 2007

Workshop on Trading Agent Design and Analysis at the 19th International Joint Conference on Artificial Intelligence, *Scaling Up the Sample Average Approximation Method for Stochastic Optimization with Applications to Trading Agents*, August 2005

The 3rd International Joint Conference on Autonomous Agents and Multi-Agent Systems, *Botticelli: A Supply Chain Management Agent*, July 2004

AWARDS

Third place in the Trading Agent Competition (TAC) Ad Auctions Division 2009

Finalist in TAC Supply Chain Management Division 2003, 2004, 2006, 2008, 2009

First place in TAC Travel Division 2006

SERVICE

Program Committee Member of North East Student Colloquium on Artificial Intelligence

Reviewer for IJCAI, TADA, ACM EC, GEB, JAIR

REFERENCES

Amy Greenwald, Professor
Department of Computer Science, Brown University
amy@cs.brown.edu tel 401-863-7678

Geoffroy de Clippel, Assistant Professor
Department of Economics, Brown University
declippel@brown.edu tel 401-863-6288

Eli Upfal, Professor
Department of Computer Science, Brown University
eli@cs.brown.edu tel 401-863-7645