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Vita

Name: Nicholas Scott Mattei, _____

Date and Place of Birth: November 8th, 1983, Louisville, Kentucky, USA.

Education

- M.S., Computer Science,
University of Kentucky, May 2010.
- B.S., Computer Engineering,
Magna cum Laude, University of Kentucky, August 2006.
- B.S., Computer Science, Honors Program, Minor in Mathematics,
Magna cum Laude, University of Kentucky, May 2006.

Employment

2010 – Current, Research Assistant, Department of Computer Science, University of Kentucky, Lexington, KY.

2012 – Current, Instructor, Bluegrass Community and Technical College, Lexington, KY.

2011, Visiting Researcher, University of Padova, Padova, Italy.

2009 – 2010, Teaching Assistant, Department of Computer Science, University of Kentucky, Lexington, KY.

2007–2011, Aerospace Technologist, NASA Ames Research Center, Moffett Field, CA.

2008, Research Assistant, Department of Computer Science, University of Kentucky, Lexington, KY.

2006 – 2007, Teaching Assistant, Department of Computer Science, University of Kentucky, Lexington, KY.

2005, Undergraduate Student Research Program Intern, NASA Ames Research Center, Moffett Field, CA.

2005 – 2006, UK/CISCO Sponsored Work-Study Program Intern, University of Kentucky Network Engineering and Operations Management Center, Lexington, KY.

2004, LERCIP Intern, NASA Glenn Research Center, Cleveland, OH.

Honors and Awards

- Co-Author with Dr. Judy Goldsmith (PI) on NSF-EAGER Grant: “Changing Minds, Changing Probabilities.”
- 2012 University of Kentucky Myrle E. and Verle D. Nietzel Visiting Distinguished Faculty Program Award which includes funding to include Dr. Francesca Rossi on my dissertation committee.
- Selected to attend the 2011 Intl. Joint Conference on Artificial Intelligence Doctoral Consortium which included funding from the NSF for an extended research visit with Dr. Francesca Rossi in Padova, Italy, Summer 2011.
- 2011 University of Kentucky Provost’s Award for Outstanding Teaching, Finalist.
- 2010 Northern Kentucky Alumni Association Fellowship.
- 2010 NASA Ames Honor Award for Outstanding Team (Nanosatellite Team).
- 2010 University of Kentucky Department of Computer Science ACM/UPE Outstanding Teaching Assistant Award Honorable Mention.
- 2008 University of Kentucky Department of Computer Science ACM/UPE Outstanding Teaching Assistant Award.
- Full Academic Scholarship to the University of Kentucky (2002–2006).
- University of Kentucky, College of Engineering Academic Scholarship (2002–2006).
- Member and Graduate Student Board Representative for the UK Chapter of the ACM (Previously held: President: 2007–2008; Treasurer: 2006–2007; Undergraduate Representative: 2005–2006; Graduate Representative: 2010–2011)
- Member of the Tau Beta Pi Engineering Honors Society
- Member of the Upsilon Pi Epsilon CS Honors Society (Secretary 2004–2008)
- Member of AAAI and the ACM.
- 2001 Kentucky Governors Scholar

Publications

Refereed Conferences and Workshops

1. Nicholas Mattei, Judy Goldsmith, and Andrew Klapper, “On the Complexity of Bribery and Manipulation in Tournaments with Uncertain Information,” *Proc. 25th Intl. Florida Artificial Intelligence Research Society Conference (FLAIRS 2012)*, June 2012.

2. Nicholas Mattei, Maria Silvia Pini, Francesca Rossi, K. Brent Venable, “Bribery in Voting Over Combinatorial Domains Is Easy,”
 - *Proc. 11th Intl. Conference on Autonomous Agents and Multiagent Systems (AAMAS-12, short paper)*, June 2012.
 - *12th Intl. Symposium on Artificial Intelligence and Mathematics (ISAIM-12), Special Session on Computational Social Choice*, January 2012.
3. Nicholas Mattei, “Empirical Evaluation of Voting Rules with Strictly Ordered Preference Data,” *Proc. 2nd Intl. Conference on Algorithmic Decision Theory (ADT-11)*, October, 2011.
4. Thomas Dodson, Nicholas Mattei, and Judy Goldsmith, “A Natural Language Argumentation Interface for Explanation Generation in Markov Decision Processes,”
 - *Proc. 2nd Intl. Conference on Algorithmic Decision Theory (ADT-11)*, October, 2011.
 - *Proc. 6th Workshop on Explanation Aware Computing (EXACT-11)*, July 2011.
5. Judy Goldsmith and Nicholas Mattei, “Science Fiction as an Introduction to AI Research,” *2nd Symposium on Educational Advances in Artificial Intelligence (EAAI-11)*, August 2011.
6. Nicholas Mattei, “Decision Making Under Uncertainty: Social Choice and Manipulation,” *Proc. 22nd Intl. Joint Conference on Artificial Intelligence (IJCAI-11, extended abstract)*, July 2011.
7. Gábor Erdélyi, Henning Fernau, Judy Goldsmith, Nicholas Mattei, Daniel Raible and Jörg Rothe, “The Complexity of Probabilistic Lobbying,” *Proc. 1st Intl. Conference on Algorithmic Decision Theory (ADT-09)*, October, 2009.
 - Also available as: Technical Report arXiv:0906.4431v3 [cs.CC], *ACM Computing Research Repository (CoRR)*, 27 pages, June 2009. Revised, November 2009.
8. Aaron Swank, Stevan Spremo, Nicholas Mattei, David Bui and Pete Klupar, “COT-SAT: Small Spacecraft Cost Optimization for Government and Commercial Use” *AIAA SPACE 2009 Conference and Exposition*, August, 2009.
9. Jesse Bregman, Christopher Dallara, Shakib Ghassemieh, James Hanratty, Evan Jackson, Chris Kitts, Pete Klupar, Michael Lindsay, Ignacio Mas, Nicholas Mattei, David Mayer, Emmett Quigley, Mike Rasay, Aaron Swank, Adam Talcott, Jeroen Vandersteen, Zion Young, “Low Cost Rapid Response Spacecraft, (LCRSS): A Case Study in Small Satellite Cost Optimization for Government and Commercial Use,” *AIAA SPACE 2008 Conference and Exposition*, August, 2008.

Refereed by Abstract:

1. Shakib Ghassemieh, Nicholas Mattei, Gregory Defouw, Michael J. McIntyre, Milan Diaz-Aguado, "Nanosatellite Payload Software: Managing Full Space Science Missions," *Small Satellite Systems and Services Symposium*, June 2010.
2. Michael C. Lindsay, Peter Klupar, Stevan Spremo, Aaron Swank, David Bui, Evan Jackson, Nicholas Mattei, David Mayer, Emmett Quigley, Zion Young, "COTSAT-1: Cost Optimization and Technology Enablement on a Small Spacecraft Platform,"
 - *NATO Research and Technology Organization Conference: RTO-MP-AVT-171 Multifunctional Structures and System Technologies for Small Spacecraft*, May, 2010.
 - *Small Satellite Systems and Services Symposium*, June 2010.

Patents:

1. Christopher Dallara, Stevan Spremo, Nicholas Mattei, "Low Burden Star Tracker," *NASA Ames Research Center ARC-16289-1*, Submitted to ARC patent office.

Invited Talks and Poster Presentations:

1. "Influence, Bribery, and Manipulation in Voting Systems: Current Results and Ongoing Work."
 - University of Padova, Italy (June 2011).
 - Capital Area Theory Seminar (CATS), University of Maryland, College Park (Feb 2012).
 - Mississippi State University (March 2012).
2. "Attitudes and Expectations of Undergraduate Students in STEM and non-STEM Disciplines." Joshua T. Guerin, Nicholas Mattei, and Thomas Dodson, Poster Presentation, 3rd Annual University of Kentucky STEM Education Symposium, Feb. 2012.
3. Nicholas Mattei, "Empirical Evaluation of Voting Rules with Strictly Ordered Preference Data," *1st Intl. Conference on Comparative Decision Making Studies*, May 2011.
4. Thomas Dodson, Nicholas Mattei, and Judy Goldsmith, "A Natural Language Argumentation Interface for Explanation Generation in Markov Decision Processes," *1st Intl. Conference on Comparative Decision Making Studies*, May 2011.
5. "Academic Advising: Automatically Generating Convincing Explanations of Recommendations from Complex Models"

- Eastern Kentucky University 25th Annual Symposium in the Mathematics, Statistical, and Computer Sciences (April 2011).
 - University of Texas at Austin (August 2011).
6. “Decision Making Under Uncertainty: Social Choice and Manipulation”
 - Mid-West Theory Day, Indiana University (May 2010).
 - Comparative Decision Making Seminar, University of Kentucky (May 2010).
 7. Nicholas Mattei, Judy Goldsmith, Gábor Erdélyi and Jörg Rothe, “The Complexity of Lobbying in an Uncertain World,” *Poster; AAAI Workshop on Advances in Preference Handling*, 2008.
 8. Nicholas Mattei, “Wireless Emergency Stop for the K-10 Lunar Rover,” *NASA Ames Research Center USRP Poster Day*, 2005.
 9. Nicholas Mattei, “Real-Time Linux Testing and Results,” *NASA Glenn Research Center LERCIP Presentation Day*, 2004.

Working Papers

1. Gábor Erdélyi, Henning Fernau, Judy Goldsmith, Nicholas Mattei, Daniel Raible and Jörg Rothe, “The Complexity of Probabilistic Lobbying.” Expanded version under review for journal.
2. Christopher R. Stieha, Nathaniel T. Wheelwright, and Nicholas Mattei “The Effects of Asymmetrical Information on Mating Decisions.” In final preparation for journal submission.
3. Thomas Dodson, Nicholas Mattei, Joshua T. Guerin, and Judy Goldsmith, “A Natural Language Argumentation Interface for Explanation Generation in Markov Decision Processes.” Expanded version under review for journal.
4. Nicholas Mattei, “Empirical Evaluation of Voting Rules with Strictly Ordered Preference Data.” Finalizing expanded version for journal submission.
5. Nicholas Mattei, “A Longitudinal Study of Alternative Teaching Methods in Computer Science Education.” Finalizing revisions for submission to conference.
6. Joshua T. Guerin, Nicholas Mattei, Robert Crawford, and Judy Goldsmith, “Constructing a Dynamic Bayes Net Model of Academic Advising With Collaborative Filtering.” Under review for journal.
7. Nicholas Mattei, Thomas Dodson, Joshua T. Guerin, and Judy Goldsmith. “Attitudes and Expectations of Undergraduate Students in STEM and non-STEM Disciplines.” In preparation.
8. Judy Goldsmith and Nicholas Mattei, “Science Fiction as an Introduction to AI Research.” Finalizing follow-up study and preparing extended version for journal submission.