

J. Benton

Department of Comp. Sci. & Engineering
Brickyard Suite 501
699 South Mill Avenue
Arizona State University
Tempe, Arizona 85281 USA

Phone: (480) 965-2735
j.benton@asu.edu
<http://www.public.asu.edu/~vidar>

Education

Ph.D. Computer Science, Arizona State University, August 2010 (Expected).

M.S. Computer Science, Arizona State University, August 2005.

B.S. Computer Science, Arizona State University, May 2001.

Research Experience

Research Assistant 2005–Present
Subbarao Kambhampati Arizona State University
Working on finding high-quality solutions for over-subscribed planning problems where limited resources are available to solve for all goals and grant-funded projects on automated planning in real-world rescue scenarios. Providing supplemental teaching assistance for graduate-level course on automated planning.

Visiting Researcher August 2006–August 2008
Minh Do and Wheeler Ruml Palo Alto Research Center (PARC)
Working on a domain-independent on-line planning simulator that simulates the arrival of goals during the planning and execution process; connecting the simulator to planners for testing planning techniques in such conditions.

Intern Summer 2006
Minh Do and Wheeler Ruml Palo Alto Research Center (PARC)
Produced on-line planning simulator for a manufacturing domain where goals arrive during the planning and execution process.

Teaching Experience

Auxiliary Teaching Assistant, **Introduction to Artificial Intelligence**, Arizona State University, Fall 2004.

Auxiliary Teaching Assistant, **Automated Planning & Learning**, Arizona State University, Spring 2008.

Other Employment

Salt River Pima-Maricopa Indian Community Scottsdale, Arizona
Programmer II 1999–2005
Developed web-based software for tracking government oversight of land management, tribal enrollment, economic development, sales tax collection, and other operations.

Journal Articles

J. Benton, Minh Do, Subbarao Kambhampati; **Anytime Heuristic Search for Partial Satisfaction Planning**; *Artificial Intelligence (AIJ)*, 173 (5-6):562-592, April 2009.

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Refereed Conferences

Paul Schermerhorn, J. Benton, Matthias Scheutz, Kartik Talamadupula, Subbarao Kambhampati; **Finding and Exploiting Goal Opportunities in Real-time during Plan Execution**; *In the Proceedings of the International Conference on Intelligent Robots and Systems (IROS)*, 2009.

Sungwook Yoon, J. Benton, Subbarao Kambhampati; **An On-line Learning Method for Improving Over-subscription Planning**; *In the Proceedings of the International Conference on Automated Planning (ICAPS)*, 2008.

Menkes van den Briel, J. Benton, Subbarao Kambhampati, Thomas Vossen; **An LP-Based Heuristic for Optimal Planning**; *In the Proceedings of the International Conference on Principles and Practice of Constraint Programming (CP)*, 2007.

J. Benton, Menkes van den Briel, Subbarao Kambhampati; **A Hybrid Linear Programming and Relaxed Plan Heuristic for Partial Satisfaction Planning Problems**; *In the Proceedings of the International Conference on Automated Planning and Scheduling (ICAPS)*, 2007.

Minh Do, J. Benton, Menkes van den Briel, Subbarao Kambhampati; **Planning with Goal Utility Dependencies**; *In the Proceedings of the International Joint Conference on AI (IJCAI)*, 2007.

J. Benton, Minh Do, Subbarao Kambhampati; **Over-subscription Planning with Numeric Goals**; *In the Proceedings of the International Conference on AI (IJCAI)*, 2005.

Workshop Papers

Kartik Talamadupula, J. Benton, Paul Schermerhorn, Subbarao Kambhampati, Matthias Scheutz; **Integrating a Closed World Planner with an Open World Robot: A Case Study**; *International Conference on Automated Planning and Scheduling (ICAPS); Workshop on Bridging the Gap Between Action and Motion Planning*, 2009.

Allen Hubbe, Wheeler Ruml, Sungwook Yoon, J. Benton, Minh Do; **On-line Anticipatory Planning**; *International Conference on Automated Planning and Scheduling (ICAPS); Workshop on A Reality Check for Planning and Scheduling Under Uncertainty*, 2008.

J. Benton, Menkes van den Briel, Subbarao Kambhampati; **Finding Admissible Bounds for Over-subscription Planning Problems**; *International Conference on Automated Planning and Scheduling (ICAPS); Workshop on Heuristics for Domain Independent Planning: Progress, Ideas, Limitations and Challenges*, 2007.

J. Benton, Minh B. Do, Wheeler Ruml; **A Simple Testbed for On-line Planning**; *International Conference on Automated Planning and Scheduling (ICAPS); Workshop on Moving Planning and Scheduling Systems into the Real World*, 2007.

Minh Do, J. Benton, Subbarao Kambhampati; **Planning with Goal Utility Dependencies**; *International Conference on Automated Planning and Scheduling (ICAPS); Workshop on Preferences and Soft Constraints in Planning*, 2006.

Systems

Yochan^{PS}; Winner of a “distinguished performance” award in the 5th *International Planning Competition*, 2006.

An Agent-Based Model of Dual-Processual Theory; M. Thompson, J. Benton; *Systems Demo at the Conference for Archaeological Sciences of the Americas*, 2006.

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Other Publications

J. Benton, Kartik Talamadupula, Subbarao Kambhampati; **A Heuristic for Soft Deadline Goals**; *International Conference on Automated Planning and Scheduling (ICAPS) Doctoral Consortium*, 2008.

J. Benton, Menkes van den Briel, Subbarao Kambhampati; **A Hybrid Linear Programming and Relaxed Plan Heuristic for Partial Satisfaction Planning Problems**; *International Conference on Automated Planning and Scheduling (ICAPS) Doctoral Consortium*, 2007.

J. Benton; **Solving Goal Utility Dependencies and Simple Preferences in Partial Satisfaction Planning**; *International Conference on Automated Planning and Scheduling (ICAPS) Doctoral Consortium*, 2006.

M. Thompson, J. Benton; **An Agent-Based Model of Dual-Processual Theory**; Poster session on Archaeological Theory and Method. *The 72nd Annual Meeting of the Society for American Archaeology*, 2007.

J. Benton, Subbarao Kambhampati, Minh Do; **YochanPS: PDDL3 Simple Preferences as Partial Satisfaction Planning**; *5th International Planning Competition booklet*, 2006.

J. Benton; **Java Annotations and apt**; *Dr. Dobb's Journal*; July 2005.

Invited Presentations

M. Thompson, J. Benton; **An Agent-Based Model of Dual-Processual Theory**; *Society for American Archaeology 73rd Annual (SAA) Meeting; Symposium on Connected Pasts: Current Network Approaches in Archaeology*, March 2008.

J. Benton, Minh Do, Wheeler Ruml; **The Manufacturing Plant Domain**; *International Conference on Automated Planning and Scheduling (ICAPS); International Competition on Knowledge Engineering for Planning and Scheduling (ICKEPS)*, Sept. 2007.

J. Benton; **Planning with Goal Utility Dependencies**; *NASA Ames Research Center*, August 2006.

Service

J. Benton, Minh Do, Wheeler Ruml; *International Competition for Knowledge Engineering in Planning and Scheduling (ICKEPS)*; April 2007. Provided a planning domain simulator.

Reviewer: AAAI 2008, Artificial Intelligence Journal (AIJ), Journal of Scheduling (JOSH).

Auxiliary Reviewer: AAAI 2005, ICAPS 2006, IJCAI 2007, ICAPS 2007, ICAPS 2008, ICAPS 2009.

Honors and Awards

Achievement Rewards for College Scientists (ARCS) Foundation Fellowship, 2009-2010.

Distinguished Performance Award at the 5th International Planning Competition, 2006.