

WESLEY N. KERR

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EDUCATION

University of Arizona, Tucson, AZ, Ph.D.

Major: Computer Science, Minor: Cognitive Science

University of Southern California, Los Angeles, CA, Computer Science

University of Wyoming, Laramie, WY, M.S. Computer Science, 2005

Kansas State University, Manhattan, KS, B.S., Computer Science, 2001
Cum Laude with Honors

ACADEMIC AND INDUSTRIAL EXPERIENCE

Research Assistant, Department of Computer Science, University of Arizona, Tucson, AZ,
2008 - Present

Research Assistant, Information Sciences Institute, University of Southern California,
Los Angeles, CA, 2005 - 2008

Research Assistant, Department of Computer Science, University of Wyoming, Laramie,
WY, 2004 - 2005

Teaching Assistant, Data Structures and Algorithms, Department of Computer Science,
University of Wyoming, Laramie, WY, 2003 - 2004

Business Analyst, Excel Corporation, Wichita, KS, 2001 - 2003

PRINCIPLE AREAS OF RESEARCH

- Artificial Intelligence
- Machine Learning
- Cognitive Science
- Evolutionary algorithms
- Distributed Robotic Control Algorithms

ORGANIZER

Organizer (with Kyle Simek): *1st Annual Computer Science Graduate Student Symposium*, University of Arizona, October, 2009

Co-President (with Kyle Simek): *Department of Computer Science Graduate Student Council*, University of Arizona, 2009

Organizer (with Jason Reisa and Steve DeNeefe): *2nd Annual ISI Graduate Student Symposium*, Information Sciences Institute, University of Southern California, August, 2007

HONORS AND RECOGNITION

1st Prize, Physical Sciences, Mathematics, Computer Engineering, & Computer Science division of the Graduate and Professional Student Council's 2009 Student Showcase, University of Arizona, November, 2009

Best Poster Runner-Up, 1st Annual Computer Science Graduate Student Symposium, University of Arizona, Title: *Learning Prepositional Verbs in Wubble World*, October, 2009

Best Paper, 2nd Annual ISI Graduate Student Symposium, University of Southern California, Title: *Training AI using Video Games*, August, 2007

Best Presentation, 2nd Annual ISI Graduate Student Symposium, University of Southern California, Title: *Training AI using Video Games*, August, 2007

EDITORIAL BOARD

ACM Crossroads, 2007 - 2008

PROFESSIONAL AFFILIATIONS

Association for the Advancement of Artificial Intelligence (AAAI), 2007 - Present

Association of Computing Machinery (ACM), February, 2007 - Present

PUBLICATIONS

In Preparation

Cohen, P., W. Kerr, and Y.-H. Chang (2009). Mining propositional and graph dynamics.

Kerr, W., P. Cohen, and Y.-H. Chang (2009). Classifying propositional time series.

Journal

Spears, D., W. Kerr, and W. Spears (2006). Physics-based robot swarms for coverage problems. *International Journal on Intelligent Control and Systems*.

Refereed Conference and Workshops

Kerr, W., P. Cohen, and Y.-H. Chang (2008). Learning and playing in wubble world. In *Artificial Intelligence for Interactive Digital Entertainment Conference AIIDE'08*.

Kerr, W., S. Hoversten, D. Hewlett, P. Cohen, and Y. Chang (2007). Learning in wubble world. In *International Conference on Development and Learning (ICDL 07)*.

Hewlett, D., S. Hoversten, W. Kerr, P. Cohen, and Y. Chang (2007). Wubble world. In *Third Artificial Intelligence for Interactive Digital Entertainment Conference*.

Chang, Y., C. T. Morrison, W. Kerr, A. Galstyan, P. R. Cohen, C. Beal, R. S. Amant, and T. Oates (2006). The jean system. In *International Conference on Development and Learning*.

Spears, D., W. Kerr, and W. Spears (2006). Fluid-like swarms with predictable macroscopic behavior. In *Lecture Notes in Computer Science*, Volume 4324. Springer-Verlag.

Kerr, W. and D. Spears (2005). Robotic simulation of gases for a surveillance task. In *2005 IEEE/RSJ International Conference on Intelligent Robots and Systems*.

Spears, W., D. Zarzhitsky, S. Hettiarachchi, and W. Kerr (2005). Strategies for multi-asset surveillance. In *2005 IEEE Networking, Sensing and Control*.

Hettiarachchi, S., W. Spears, D. Green, and W. Kerr (2005). Distributed agent evolution with dynamic adaptation to local unexpected scenarios. In *Proceedings of the 2005 Second GSFC/IEEE Workshop on Radical Agent Concepts*.

Spears, W., D. Spears, R. Heil, W. Kerr, and S. Hettiarachchi (2005). An overview of physicomimetics. In E. Sahin and W. Spears (Eds.), *Lecture Notes in Computer Science State-of-the-Art Series*.

Kerr, W., D. Spears, W. Spears, and D. Thayer (2004). Two formal gas models for multiagent sweeping and obstacle avoidance. In *Lecture Notes in Artificial Intelligence*, Volume 3228. Springer-Verlag.

Masters Thesis

Kerr, W. (2005). Physics based multiagent swarms and their application to coverage problems. Master's thesis, University of Wyoming, Laramie, WY.