

# Dr. Derek Shawn Harter, BSc, MSc, PhD

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Associate Professor  
Journalism 208  
Department of Computer Science  
Texas A&M University  
Commerce, TX 75429-3011

**Nationality:** US Citizen  
Derek\_Harter@tamu-commerce.edu  
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## Employment

- 2011-pres** Associate Professor, Department of Computer Science, Texas A&M University - Commerce.  
**2005-2011** Assistant Professor, Department of Computer Science, Texas A&M University - Commerce.  
**2004-2005** Visiting Professor, Department of Computer Science, Texas A&M University - Commerce.  
**2001-2004** Research Scientist, NASA Intelligent Systems Grant NCC-2-1244 SODAS, University of Memphis.  
**2000-2001** Research Scientist, ONR MURI Grant N00014-00-1-0600 Why2000, University of Memphis.  
**1998-2000** Principle Research Programmer, NSF Grant SBR 9720314 AutoTutor, University of Memphis.  
**1994-1998** Senior Software Engineer, Research and Development, MCImetro, Reston, VA  
**1990-1994** Software Engineer, Hughes Network Systems, Germantown, MD
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## Education

- 1998-2004** University of Memphis, Memphis, TN  
Department of Mathematics and Computer Science  
PhD, Computer Science  
Computational Neurodynamics Laboratory (Dr. Robert Kozma)  
Institute for Intelligent Systems (Dr. Stan Franklin, Dr. Arthur C. Graesser)  
Graduated with Distinction  
**PhD Thesis:**  
"Towards a Model of Basic Intentional Systems: Chaotic Dynamics for Perception and Action in Autonomous Adaptive Agents"
- 1992-1994** Johns Hopkins University, Baltimore, MD  
Department of Computer Science  
MSc, Computer Science with concentration Artificial Intelligence  
Graduated with Honors  
**MSc Thesis:**  
"Simple Voice Recognition System for Remote Control of Entertainment Devices"
- 1986-1990** Purdue University, West Lafayette, IN  
Department of Computer Science  
BSc, Computer Science
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## Publications

### Journal Articles



*Interaction.*

13. Harter, D. (2011). Functional and Physical Constraints for Evolving Small-World Structure in Embodied Networks. *Proceedings of the 2011 International Joint Conference on Neural Networks (IJCNN 2011)*.
14. Harter, D. & Lu, S., Kotturu, P. and Pierce, D. (2011). An Immersive Virtual Environment for Varying Risk and Immersion for Effective Training. *Proceedings of the ASME 2011 World Conference on Innovative Virtual Reality*.
15. Pierce, D., Lu, S. and Harter, D. (2011). Risk taking differences affect outcomes in virtual training scenarios. *Proceedings of the ASME 2011 World Conference on Innovative Virtual Reality*.
16. Harter, D. & Zhang, L. (2010). Parallelization of Genetic Optimization for Large Network Simulations on a Cluster Computer. *Proceedings of the Society for Design and Process Science 2010*.
17. Pierce, D., Lu, S., & Harter, D. (2010). Perceiving events in simulated environments: The role of expectation driven processes. *Proceedings of the World Conference on Innovative Virtual Reality 2010*. New York: ASME Publishing.
18. Pierce, D., Lu, S., & Harter, D. (2009). Enacting actions in simulated environments. In S. Garbaya (Eds.), *Proceedings of the Inaugural World Conference on Innovative Virtual Reality*. New York: ASME Publishing.
19. Harter, D. (2007). Time Constraints and the Evolution of Scale-Free Properties in Associative Networks. *Proceedings of the NSF International Workshop on Large Scale Random Graph Methods for Modeling Mesoscopic Behavior in Biological and Physical Systems*, Budapest, Hungary, Aug. 2007.
20. Harter, D., and Kozma, R. (2006). Nonconvergent Dynamics and Cognitive Systems. *Proceedings of the 28<sup>th</sup> Annual Meeting of the Cognitive Science Society (CogSci 2006)*, Vancouver, BC Canada, Jul. 2006, pp. 1446-1452.
21. Lu, S. and Harter, D. (2006). The role of overlap and end state in perceiving and remembering events. *Proceedings of the 28<sup>th</sup> Annual Meeting of the Cognitive Science Society (CogSci 2006)*, Vancouver, BC Canada, Jul. 2006, pp. 1729-1835.
22. Harter, D. (2006). Complex Systems Approaches to Emergent Goal Formation in Cognitive Agents. *Proceedings of the 2006 International Joint Conference on Neural Networks (IJCNN'06)*, Vancouver, BC Canada, Jul. 2006, pp. 1682-1688.
23. Harter, D. & Kozma, R. (2005). Iterative Model of Mesoscopic Neural Populations Displaying Aperiodic Dynamics. *Proceedings of the 2005 International Symposium on Nonlinear Theory and its Applications (NOLTA'05)*, Bruges, Belgium, Oct. 2005.
24. Harter, D. (2005). Evolving Neurodynamic Controllers for Autonomous Robots. *Proceedings of the 2005 International Joint Conference on Neural Networks (IJCNN'05)*, Montreal, Canada, Aug. 2005, pp. 137-142.
25. Lu, S. and Harter, D. (2005). Representing Events Using Fuzzy Temporal Boundaries. *Proceedings of the 27<sup>th</sup> Annual Conference of the Cognitive Science Society*, Stresa, Italy, Jul. 2005, pp. 1343-1348.
26. Harter, D. (2005). Discrete Approximation of Continuous K-Set Population Model. *Proceedings of the Fourteenth Annual Computational Neuroscience Meeting (CNS\*2005)*, Madison, WI, Jul. 2005, pp. 80.
27. Lu, S. and Harter, D. (2005). A Recurrent Neural Network Model of Event Temporal Representations. *Proceedings of the 51<sup>st</sup> Southwestern Psychological Association Annual Meeting*, Memphis, TN, Mar. 2005.
28. Harter, D., and Kozma, R. (2004). Complex Systems Approaches to the Ontogenetic Development of Behavior. *Proceedings of the 3rd Annual Technical Conference of the American Institute of Aeronautics and Astronautics Conference (AIAA 2004)*, Chicago, IL, Sept. 2004, pp. 312.
29. Harter, D., and Kozma, R. (2004). Biological Limbic Systems: A Bottom-Up Model for Deliberative Action. *Proceedings of the 26<sup>th</sup> Annual Meeting of the Cognitive Science Society (CogSci 2004)*, Chicago, IL, Aug. 2004, pp. 1569.
30. Harter, D., and Kozma, R. (2004). Navigation and cognitive map formation using aperiodic neurodynamics. *Proceedings of the 8th International Conference on the Simulation of Adaptive Behavior (SAB'04)*, Los Angeles, CA, July 2004, pp. 450-455.
31. Harter, D., and Kozma, R. (2004). Aperiodic dynamics and the self-organization of cognitive maps in autonomous agents. *Proceedings of the 17th International FLAIRS Conference (FLAIRS'04)*, Miami, FL, May 2004, pp. 424-429.
32. Harter, D., and Kozma, R. (2004). Aperiodic dynamics for appetitive/aversive behavior in autonomous agents. *Proceedings of the 2004 IEEE International Conference on Robotics and Automation (ICRA'04)*, New Orleans, LA, April 2004, pp. 2147-2152.
33. Harter, D., and Kozma, R. (2002). Simulating the principles of chaotic neurodynamics. In *Proceedings of the 6th World Multi-Conference on Systemics, Cybernetics and Informatics (SCI 2002)*, volume XIII, pages 598-603, Orlando, FL.
34. Kozma, R., Harter, D. and Achunala, S. (2002). Action selection under constraints: Dynamic optimization of behavior in machines and humans. In *Proceedings of the IEEE/INNS/ENNS International Joint Conference on*

- Neural Networks (IJCNN'02)*, pages 2574-2579, Washington, D.C.
35. Harter, D. (2001). Ontogenetic development of skills, strategies and goals for autonomously behaving systems. In *Proceedings of the 5th World Multi-Conference on Systemics, Cybernetics and Informatics (SCI 2001)*, pages 178-181, Orlando, FL.
  36. Harter, D., and Kozma, R. (2001). Models of ontogenetic development for autonomous adaptive systems. In *Proceedings of the 23<sup>rd</sup> Annual Conference of the Cognitive Science Society*, pages 405-410, Edinburgh, Scotland.
  37. Harter, D., and Kozma, R. (2001). Task environments for the dynamic development of behavior. In *Proceedings of the Intelligent Systems Design and Applications 2001 Workshop (ISDA 2001)*, pages 300-309, San Francisco, CA.
  38. Harter, D., and Kozma, R. (2001). Ontogenetic development of behavior for simple tasks. In *Proceedings of the Artificial Intelligence and Soft Computing Conference (ASC 2001)*, pages 401-407, Cancun, Mexico.
  39. Harter, D., Kozma, R. and Franklin S. P. (2001). Models of ontogenetic development: The dynamics of learning. In *Proceedings of the 2001 Learning Workshop*, page 37, Snowbird, UT.
  40. Harter, D., Kozma, R. and Franklin S. P. (2001). Ontogenetic development of skills, strategies and goals for autonomously behaving systems. In *Proceedings of the Fifth International Conference of Cognitive and Neural Systems (CNS2001)*, page 18, Boston, MA.
  41. Kozma, R., Harter, D. and Franklin S. P. (2001). Self-organizing ontogenetic development for autonomous adaptive systems (SODAS). In *Proceedings of the IEEE/INNS/ENNS International Joint Conference on Neural Networks (IJCNN'01)*, pages 633-637, Washington, D.C.
  42. Graesser, A.C., Person, N., Harter, D., and the Tutoring Research Group (2000). Teaching tactics in AutoTutor. In *Proceedings of the Workshop on Tutorial Dialogue at the Intelligent Tutoring Systems 2000 Conference*. pages 49-57, University of Quebec, Canada.
  43. Marineau, J., Wiemer-Hastings, P., Harter, D., Olde, B., Chipman, P., Karnavat, A., Pomeroy, V., Graesser, A.C., and the Tutoring Research Group (2000). Classification of speech acts in tutorial dialog. In *Proceedings of the Workshop on Tutorial Dialogue at the Intelligent Tutoring Systems 2000 Conference*.
  44. Wiemer-Hastings, P., Graesser, A. C., Harter, D., & the Tutoring Research Group (1998). The foundations and architecture of AutoTutor. In *Proceedings of the 4th International Conference on Intelligent Tutoring Systems*, pages 334-343, Berlin Springer-Verlag.

## Under Review

- Harter, D., Lu, S., (under review). Low-cost immersive environments for embodied perceptual-motor training using Wii Remotes.
- Harter, D. & Saffer, S. (under review). Project Corvus, a net-centric cognitive architecture for large-scale wireless sensor networks.

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## Invited Talks

- Harter, D. (December, 2011). Evolution of Large-Scale Complex Brain Networks. Invited Physics Colloquium talk presented at the Department of Physics, Texas A&M University – Commerce, Commerce, TX.
- Lu, S., & Harter, D. (October, 2011). The perceptual grounding of actions in virtual environments. Invited talk presented at Department of Psychology, University of Utah, Salt Lake City.
- Harter, D., & Lu, S. (July, 2011). A bottom up approach to investigating embodiment in virtual environments. Invited talk presented at the Experimental Virtual Environments for Neuroscience and Technology Research Group, University of Barcelona, Spain.
- Harter, D., Saffer, S. (2007). "Project Corvus and L3 HPC Activities at TAMUC", Texas A&M University - Commerce Math Colloquium, April 3.
- Harter, D., Saffer, S. (2007). "Computational Sciences and High Performance Computing", Texas A&M University - Commerce Physics Colloquium, February 15.
- Harter, D. (2007). Time Constraints and the Evolution of Scale-Free Properties in Associative Networks. Paper presented at the 1<sup>st</sup> NSF International Workshop on Large Scale Random Graph Methods for Modeling Mesoscopic Behavior in Biological and Physical Systems, Budapest, Hungary, Aug. 2006.
- Harter, D. (2004). "Computing, Life Sciences and Cognition: Interdisciplinary Approaches to Understanding Intelligence", Texas A&M University - Commerce, Sigma XI Society semi-annual meeting, December 2.

Harter, D. (2004). "Salamanders Don't Play Chess: Computation, Sciences and Careers for the 21<sup>st</sup> Century", Mesquite Metroplex Center Mentoring Workshop, November 13.

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### Conference Presentations

- Harter, D. (August, 2011). Functional and Physical Constraints for Evolving Small-World Structure in Embodied Networks. Paper presented at the Proceedings of the 2011 International Joint Conference on Neural Networks (IJCNN 2011).
- Lu, S., Pierce, D., Rawlinson, T., & Harter, D. (June, 2011). The role of high visual realism in reducing potential risk taking in simulated environments. Paper presented at the World Conference on Innovative Virtual Reality, Milan, Italy.
- Harter, D., Lu, S., Kotturu, P., & Pierce, D. (2011). An immersive virtual environment for varying risk and immersion for effective training. Paper presented at the World Conference on Innovative Virtual Reality, Milan, Italy.
- Pierce, D., Lu, S., & Harter, D. (May, 2010). Perceiving events in simulated environments: The role of expectation driven processes. Paper presented at the World Conference on Innovative Virtual Reality, Ames, Iowa.
- Zhang, L. & Harter, D. (2010). Parallelization of Genetic Optimization for Large Network Simulations on a Cluster Computer. Proceedings of the Society for Design and Process Science 2010, Dallas, TX.
- Pierce, D., Lu, S., & Harter, D. (2009). Enacting actions in the simulated environments. Paper presented at the Inaugural World Conference on Innovative Virtual Reality, Chalon-sur-Saône, France.
- Harter, D., and Kozma, R. (2006). Nonconvergent Dynamics and Cognitive Systems. Poster presented at the 28<sup>th</sup> Annual Meeting of the Cognitive Science Society (CogSci 2006), Vancouver, BC Canada, Jul. 2006.
- Lu, S. and Harter, D. (2006). The role of overlap and end state in perceiving and remembering events. Poster presented at the 28<sup>th</sup> Annual Meeting of the Cognitive Science Society (CogSci 2006), Vancouver, BC Canada, Jul. 2006.
- Harter, D. (2006). Complex Systems Approaches to Emergent Goal Formation in Cognitive Agents. Paper presented at the 2006 International Joint Conference on Neural Networks (IJCNN'06), Vancouver, BC Canada, Jul. 2006.
- Harter, D. (2005). Evolving Neurodynamic Controllers for Autonomous Robots. Paper presented at the 2005 International Joint Conference on Neural Networks (IJCNN'05), Montreal, Canada, Aug. 2005.
- Harter, D. (2005). Applications of IDS: Mead's Challenge, What is Going on Here?. Invited talk at the 2005 International Joint Conference on Neural Networks (IJCNN'05) Workshop on Intentional Dynamical Systems, Montreal, Canada, Aug. 2005.
- Lu, S. and Harter, D. (2005). Representing Events Using Fuzzy Temporal Boundaries. Poster presented at the 27<sup>th</sup> Annual Conference of the Cognitive Science Society, Stresa, Italy, Jul. 2005.
- Harter, D. (2005). Discrete Approximation of Continuous K-Set Population Model. Poster presented at the Fourteenth Annual Computational Neuroscience Meeting (CNS\*2005), Madison, WI, Jul. 2005.
- Lu, S. and Harter, D. (2005). A Recurrent Neural Network Model of Event Temporal Representations. Poster presented at the 51<sup>st</sup> Southwestern Psychological Association Annual Meeting, Memphis, TN, Mar. 2005.
- Harter, D., and Kozma, R. (2004). Complex Systems Approaches to the Ontogenetic Development of Behavior. Paper presented at 1<sup>st</sup> Intelligent Systems Technical Conference of the American Institute of Aeronautics and Astronautics (AIAA'04), Chicago, IL, September 2004.
- Harter, D., and Kozma, R. and Freeman, W.J. (2004). Biological Limbic Systems: A Bottom-Up Model for Deliberative Action. Poster presented at the 26<sup>th</sup> Annual Meeting of the Cognitive Science Society (CogSci 2004), Chicago, IL, August 2004.
- Harter, D., and Kozma, R. (2004). Navigation and Cognitive Map Formation Using Aperiodic Neurodynamics. Paper presented at From Animals to Animats 8: The 8<sup>th</sup> International Conference on the Simulation of Adaptive Behavior (SAB '04), Los Angeles, CA, July 2004.
- Harter, D., and Kozma, R. (2004). Aperiodic dynamics and the self-organization of cognitive maps in autonomous agents. Paper presented at the 17th International FLAIRS Conference (FLAIRS'04), Miami, FL, May 2004.
- Harter, D., and Kozma, R. (2004). Aperiodic Dynamics for Appetitive/Aversive Behavior in Autonomous Agents. Paper presented at the 2004 IEEE International Conference on Robotics and Automation (ICRA 2004), New Orleans, LA, April 2004.
- Harter, D. (2004). Formation of perceptual patterns in autonomous agents using a discretized K-III model. Paper presented at the 2004 Intentional Dynamic Systems Conference (IDS'04), Memphis, TN, April 2004.

- Harter, D., and Kozma, R. (2002). Simulating the principles of chaotic neurodynamics. Paper presented at the 6th World Multi-Conference on Systemics, Cybernetics and Informatics (SCI 2002), Orlando, FL.
- Harter, D. (2002). Computational neurodynamics at the University of Memphis. Paper presented at the 4<sup>th</sup> Annual Memphis Area Engineering and Science Conference (MAESC 2002), Memphis, TN.
- Harter, D. (2002). Chaotic neurodynamics for behaviors in autonomous agents. Poster presented at the 2002 Symposia on the Dynamics of Memory, Perception and Consciousness (DPCM 2002), Memphis, TN.
- Harter, D. (2001). Ontogenetic development of skills, strategies and goals for autonomously behaving systems. Paper presented at the 5th World Multi-Conference on Systemics, Cybernetics and Informatics (SCI 2001), Orlando, FL.
- Harter, D., and Kozma, R. (2001). Models of ontogenetic development for autonomous adaptive systems. Poster presented at the 23<sup>rd</sup> Annual Conference of the Cognitive Science Society, Edinburgh, Scotland.
- Harter, D., and Kozma, R. (2001). Ontogenetic development of behavior for simple tasks. Paper presented at the Artificial Intelligence and Soft Computing Conference (ASC 2001), Cancun, Mexico.
- Harter, D., Kozma, R. and Franklin S. P. (2001). Models of ontogenetic development: The dynamics of learning. Poster presented at the 2001 Learning Workshop, Snowbird, UT.
- Harter, D., Kozma, R. and Franklin S. P. (2001). Ontogenetic development of skills, strategies and goals for autonomously behaving systems. Poster presented at the Fifth International Conference of Cognitive and Neural Systems (CNS2001), Boston, MA.
- Graesser, A.C., Person, N., Harter, D., & the Tutoring Research Group (2000, June). Teaching tactics in AutoTutor. Paper presented at the Workshop on Tutorial Dialogue at the Intelligent Tutoring Systems 2000 Conference, Montreal, Canada.
- Marineau, J., Wiemer-Hastings, P., Harter, D., Olde, B., Chipman, P., Karnavat, A., Pomeroy, V., Graesser, A.C., and the Tutoring Research Group (2000, June). Classification of speech acts in tutorial dialog. Paper presented at the Workshop on Tutorial Dialogue at the Intelligent Tutoring Systems 2000 Conference, Montreal, Canada.
- Person, N., Graesser, A.C., Harter, D., Mathews, E., and the Tutoring Research Group (2000, November). Dialog move generation and conversation management in AutoTutor. Paper presented at the AAAI Fall Symposium 2000 on Building Dialogue Systems for Tutorial Applications, Cape Code, MA.
- Person, N., Graesser, A.C., Harter, D., and the Tutoring Research Group (2000, July). The dialog advancer network: A mechanism for improving AutoTutors conversational skills. Paper presented at the Meetings of the Society for Text and Discourse, Lyon, France.
- Rajan, S., Harter, D., Graesser, A.C., and the Tutoring Research Group (2000, July). Back channel feedback in human and intelligent tutoring systems. Poster presented at the Meetings of the Society for Text and Discourse, Lyon, France.
- Graesser, A. C., Wiemer-Hastings, K., Wiemer-Hastings, P., Harter, D., Person, N., and Kreuz, R. (1999). Latent semantic analysis can reliably evaluate student contributions in AutoTutor. Paper presented at the 40th Annual Meeting of the Psychonomic Society, Los Angeles, California.
- Graesser, A.C., Franklin, S. P., and the Tutoring Research Group (1998, July). The goals and design of AutoTutor. Symposium presented at the 8<sup>th</sup> Annual Meeting of the Society for Text and Discourse, Madison, Wisconsin.

### External Grants

- Saffer, S., Harter, D., Suh, S., Lu, S., Miskevich, F. (2009). "The Development of an Artificial Science and Engineering Research HPC Infrastructure to Facilitate Innovative Computational Modeling", Department of Energy (DOE) #DE-SC0001132, **\$380,000, Funded**, 2009-
- Lu, S., Harter, D., Henley, T. (2009). "Perceiving and Enacting Actions in Simulated Environments", National Science Foundation (NSF) #0916749, **\$500,000, Funded**, 2009-
- Harter, D. (2008). "Network Resource Provisioning as a Complex Adaptive System", Defense Advanced Research Projects (DARPA), \$100,000.
- Harter, D., Lu, S. (2007). "Neurodynamics of Intentional Behavior", Jams S. McDonnell Foundation Bridging Brain Mind and Behavior Research Grant, \$400,000.
- Lu, S., Harter, D., Henley, T. (2007). "The Role of Sensorimotor and Perceptual Features in Perceiving and Enacting Actions", National Science Foundation (NSF) #0742109, **\$70,000, Funded**, 2007-2008.
- Harter, D., Saffer, S., Lu, S., Suh, S. (2007). "CDI-Type II; Corvus: A Curious Distributed Cyber-Infrastructure", National Science Foundation (NSF), \$650,000.

- Harter, D., Lu, S., Tseng, S. (2006). "Investigating the Formation of Intentionality in Intelligent Systems", Texas Advanced Research Program (ARP) #003565-0002-2006, **\$100,000, Funded**, 2006-2007.
- Harter, D., Lu, S., Saffer, S. (2006). "Self-Organizing Curious Anticipatory Architectures for Robust Intelligence (SCARI)", National Science Foundation (NSF), \$450,000.
- Harter, D., Saffer, S., Lu, S., (2005). "Cognitive Models of Curiosity for Automatic Object Discovery, Identification, Location and Tracking", L3 Communications Comcept Division Industry Award, **\$385,000, Funded**, 2005-2008.
- Kozma, R., Harter, D., Freeman, W.J., Franklin, S. (2001). "Models of Self-Organizing Ontogenetic Development for Autonomous Adaptive Systems (SODAS)", National Aeronautics and Space Administration (NASA) grant #NCC-2-1244, **\$1,000,000, Funded**, 2001-2004.
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### Internal Grants

- Harter, D. (2009). "Fractal Self-Organization of Sensory-Motor Systems", Texas A&M University - Commerce Research Enhancement Grant, **\$16,250, Funded**, 2009-2010.
- Lu, S., Harter, D. (2008). "An Investigation of Enacting Risky Actions", Texas A&M University - Commerce Research Enhancement Grant, **\$11,680, Funded**, 2008.
- Lu, S., Harter, D. (2005). "A Computational and Empirical Investigation of Time in Perceiving, Remembering and Describing Events and Actions", Texas A&M University - Commerce Research Enhancement Grant, **\$6128, Funded**, 2005.
- Harter, D. (2004). "Support Equipment for Embodied Robotics Laboratory", Texas A&M University - Commerce Mini-Grant, **\$600, Funded**, 2004.
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### Awards

- 2006** Travel Award, \$750, NSF Carnegie Mellon University Embodiment Symposium.
- 2006** Travel Award, \$1500, NSF Large Scale Random Graph Workshop.
- 2004** National Academy of Sciences Research Associateship Awardee, 12 Month NASA/JSC.
- 2001** Travel Award, \$500, NSF Travel Grant Cognitive Science Society.
- 2001** Travel Award, \$750, Cognitive and Neural Systems.
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### Academic Experience

- Reviewer:** Prentice Hall Book Reviewer, International Journal of Intelligent Systems (IJIS), International Neural Networks Society (INNS) Newsletter, IEEE Transactions on Neural Networks, Neural Networks, Cognitive Science Conference, International Joint Conference on Neural Networks, Intentional Dynamic Systems Conference, Intelligent Systems Design and Applications Conference.
- Organizer:** 2010 Lecture Series on HPC @ TAMUC, 2006 Northeast Texas INNS/MIND Workshop on Goal-Directed Neural Systems, 2004 Symposium on Intentional Dynamic Systems University of Memphis, 2001 Symposium on the Dynamics of Memory, Perception and Consciousness, University of Memphis.
- Professional Memberships:** Association of Computing Machinery (ACM), Cognitive Science Society, Institute of Electrical and Electronics Engineers (IEEE), Society of Adaptive Behavior, American Institute of Aeronautics and Astronautics.
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### Teaching

**Instructor:**

- Texas A&M University - Commerce:  
Spring 2010: High Performance Computing

Spring 2010/09/08/07/06: Unix Programming and Networking  
Fall 2009/07, Spring 2006: Graduate Artificial Intelligence  
Fall 2009/07, Spring 2006: Undergraduate Artificial Intelligence  
Fall 2009/08, Spring 2005: Graduate Operating Systems  
Fall 2009/08, Spring 2005: Undergraduate Operating Systems  
Spring 2009/08: Undergraduate Unix Programming  
Spring 2009: Object Oriented Programming  
Fall 2008: Fundamentals of Programming Lab  
Spring 2008: Unix Network Administration  
Spring 2008/07, Fall 2008/07/06: Java Programming  
Fall 2008: Microcomputer Applications  
Summer 2008/06, Fall 2005/04, Spring 2005: Undergraduate Programming II  
Fall 2008/05: Robotics and Autonomous Systems  
Spring 2007: Linux and Python Software Development  
Spring 2007: Programming Languages  
Summer 2008/05, Fall 2004: Data Structures  
Spring 2010/09/07, Fall 2009/08, Summer 2009/07: Thesis  
Spring 2010/08/07/06/05, Fall 2008/07/06/05/04: Research Literature and Techniques

University of Memphis:

Spring 2004: Expert Systems and Prolog  
Summer 2004: Data Structures  
Fall 2001: Dynamics of Memory and Cognition

**Graduate Advisor:**

Pratyush Koturu, MSc, PhD, 2006-present.  
Devin Pierce, PhD, 2007-2010.  
Chris Jones, MSc, 2009-present.  
Gideon Mazambani, MSc, 2008-2009.  
Terry Rawlinson, MSc, PhD, 2007-present.  
Mei Jiang, Ph.D. 2007-2009.  
Lonnie Wakefield, MSc, 2006-2008.  
Tom Faulkenberry, Ph.D., 2006-2008.

**Postdoctoral Advisor:**

Linbao Zhang, postdoctoral associate, 2010-2011.

**Mentor:**

Over 25 graduate and undergraduate student research projects and honors projects, 2004-present.

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**Academic Service**

**2010-present**: Computational Sciences Ph.D. Degree Program Development Committee.  
**2008-present**: Computer Science Graduate Curriculum Review Committee.  
**2008-present**: TAMUC Faculty Development Committee.  
**2010, Spring**: TAMUC Graduate Expo, Mesquite Metroplex Center.  
**2010, Spring**: Judge, University Interscholastic League Academic Meet, Computer Science Regional.  
**2009, Fall**: University Days Department of Computer Science organizer and mentor.  
**2009, Spring**: Mentor TAMUC National Cyber Defense Team competition.  
**2009, Spring**: Judge, University Interscholastic League Academic Meet, Computer Science Regional.  
**2008-2009**: Professional Sciences Master's Degree Program Committee.



**2008- 2009:** College of Arts and Sciences Dean Advisory Search Committee.  
**2008, Fall:** TAMUC University Days Presenter, Computer Science Breakout Session.  
**2008, Summer:** Organizer, X-Teams Summer Academy, Introduction to Programming Concepts using Lego MindStorms.  
**2008, Spring:** Ad Hoc CSIS College of Business Committee.  
**2008, Spring:** Judge, University Interscholastic League Academic Meet, Computer Science Regional.  
**2007-2008:** Computer Science and Information Systems Department Head Search Committee.  
**2007, Fall:** TAMUC Freshman Success Seminar, Computational Sciences: Building Universal Skill Sets for the 21<sup>st</sup> Century.  
**2007, Fall:** TAMUC University Days Presenter, Computer Science Breakout Session.  
**2007, Spring:** Judge, University Interscholastic League Academic Meet, Computer Science Regional.  
**2006, Spring:** Judge, University Interscholastic League Academic Meet, Computer Science Regional.  
**2006:** Co-Organizer TAMUC Brain, Computation and Mind brown bag seminars  
**2005, Fall:** TAMUC University Days Computer Science Department organizer and mentor  
**2004-2008:** ACM Student Chapter Faculty Advisor  
**2004-2005:** Computer Science ABET Committee  
**2004-2005:** Computer Science Curriculum Committee  
**2004, Fall:** Mesquite Metroplex Center Mentoring Workshop  
**2004, Fall:** TAMUC University Days Computer Science Department organizer and Mentor

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## Professional References

**1. Dr. Robert Kozma, Full Professor, Director**

Department of Computer Sciences  
Computational Neurodynamics Laboratory  
University of Memphis, Memphis TN 38152  
(901) 678-2497  
rkozma@memphis.edu  
<http://www.cs.memphis.edu/~rkozma>

**3. Dr. Peter Hastings, Associate Professor**

Department of Computer Science,  
DePaul University  
243 S. Wabash Ave, Room 640, Chicago, IL 60604  
(312) 362-5736  
peterh@cdm.depaul.edu  
<http://reed.cs.depaul.edu/peterh>

**5. Dr. Arthur C. Graesser, Full Professor, Director**

Department of Psychology  
Institute for Intelligent Systems  
University of Memphis, Memphis TN 38152  
(901) 678-4857  
a-graesser@memphis.edu  
<http://sites.google.com/site/graesserart>

**2. Dr. Carlos A. Bertulani, Full Professor**

Department of Physics and Astronomy  
Texas A&M University - Commerce  
Commerce, TX 75429  
(903) 886-5882  
Carlos\_Bertulani@tamu-commerce.edu  
<http://faculty.tamu-commerce.edu/cbertulani>

**4. Dr. Sam Saffer, Full Professor**

Department of Computer Science  
Texas A&M University, Commerce TX 75429  
(903) 886-5401  
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<http://cs.tamu-commerce.edu/>