

# Larry D. Pyeatt

## Biographical Sketch

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### Professional Preparation

#### Doctor of Philosophy in Computer Science

Colorado State University, 1999.

Dissertation: *Integration of Partially Observable Markov Decision Processes and Reinforcement Learning for Simulated Robot Navigation*

Committee: Adele Howe (Chair), Charles Anderson, Darrell Whitley, Wade Troxell

#### Master of Science in Computer Science

Texas Tech University, 1991.

Thesis: *Application of the Neural Ring Pattern Classifier to Speech Recognition*

#### Bachelor of Science in Computer Science

Texas Tech University, 1988.

### Research Interests

Partially Observable Markov Decision Processes, Reinforcement Learning, Function Approximation, Robotics and Agent Architectures, Evolutionary Programming, Real-time and Embedded Systems

### Professional Appointments

**Assistant Professor** Texas Tech University, Lubbock, 9/99–present.

**Graduate Research Assistant/Doctoral Candidate** Colorado State University, Fort Collins, 9/93–9/99.

**Senior Information Systems Programmer** Texaco Inc., Houston, Texas, 9/91–9/93.

**Embedded Control Systems Design Engineer** Applied Hydraulics, Lubbock, Texas, 1/87–7/88.

### Recent Publications

Chengcheng Li and Larry D. Pyeatt. A short tutorial on reinforcement learning: review and applications. In *Proceedings of the International Conference on Intelligent Information Process*, page not yet available, Beijing, China, October 2004.

Chengcheng Li and Larry D. Pyeatt. Automatic U.S. vehicle license plate extraction and license number splitting under various illumination conditions. In *Proceedings of the International Conference on Computing, Communications and Control Technologies*, volume II, pages 143–148, 2004.

Chengcheng Li and Larry D. Pyeatt. Preprocesses of U.S. vehicle license plate” recognition. In *Proceedings of The 6th IASTED International Conference on Signal and Image Processing*, pages 89–94, Honolulu, Hawaii, August 2004. International Association of Science and Technology for Development (IASTED).

Chengcheng Li and Larry D. Pyeatt. U.s. vehicle license plate localization. In *Proceedings of the International Conference on Computing, Communications and Control Technologies*, volume VII, pages 314–319, Austin, Texas, August 2004. University of Texas at Austin and the International Institute of Informatics and Systemics (IIS).

Todd M. Quasny and Larry D. Pyeatt. Reinforcement learning in the control of a simulated life support system. In *Proceedings of the International Conference on Environmental Systems (ICES)*, pages 1–7, Colorado Springs, CO, July 2004. Society of Automotive Engineers. The proceedings were produced on CD-ROM and papers were not assigned individual page numbers.

Laura Barnes, Todd Quasny, Richard Garcia, and Larry D. Pyeatt. Multi-agent mapping using dynamic allocation utilizing a centralized storage system. In *Proceedings of the 12th Annual Mediterranean Conference on Control and Automation*, pages 1–6, Kusadasi, Aydin, Turkey, June 2004. The proceedings were produced on CD-ROM and papers were not assigned individual page numbers.

Brett Moore, Todd Quasny, Eric Sinzinger, and Larry Pyeatt. An intelligent agent for closed-loop sedation of simulated ICU patients. In *Proceedings of the 17th International Florida AI Research Society Conference (FLAIRS)*, pages 109–113, Miami Beach, Florida, May 2004. Winner of best paper award.

**Synergistic  
Activities**

**Combining Research and Curriculum Development** Co-PI on NSF CRCD grant entitled “Machine Learning: a Multidisciplinary Computer Engineering Graduate Program.” The grant supports the creation of an interdisciplinary program in artificial intelligence and includes the development of new courses and textbooks in Dynamic Programming and Reinforcement Learning.

**Reviewer**

2001 IEEE Transactions on Pattern Analysis and Machine Intelligence  
2001 International Symposium on Adaptive Systems  
2000 IEEE Transactions on Pattern Analysis and Machine Intelligence  
1999 Journal of Experimental and Theoretical Artificial Intelligence  
1999 IEEE Transactions on Knowledge and Data Engineering  
1998 American Journal of Mathematical and Management Sciences

**Program Committee**

2001 Third International Symposium on Adaptive Systems

**Collaborators**

**Collaborators and Co-Editors** Brett Moore (Texas Tech), Todd Quasny (Texas Tech), Adele Howe (Colorado State)

**Graduate and Postdoctoral Advisors** Adele Howe (Colorado State), Darrell Whitley (Colorado State), Charles Anderson (Colorado State), Wade Troxell (Colorado State)

**Thesis Advisor**

**Master’s Students**

Srividya Kona, graduated in May, 2002  
Ajay Bansal, graduated in May, 2002  
Bharani Ellore, expected graduation in December, 2002  
Sriram Sundararajan, expected graduation in May, 2003  
Adem Ozyavas, expected graduation in May, 2003  
Todd Quasny, expected graduation in May, 2004

**Bachelor’s Students**

Todd Quasny, graduated in December, 2001