

# Curriculum Vitae

## Paul Dickson

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University of Massachusetts Amherst  
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### Education

- May 2008 (Expected) Ph.D. Computer Science, University of Massachusetts Amherst.  
Thesis: Automatic Capture and Indexing of Lectures  
Chairs: W. Richards Adrion and Allen R. Hanson
- May 2008 (Expected) M.S. Computer Science, University of Massachusetts Amherst.  
Thesis: Match and Mosaic Generation for Small Camera Object Separation  
Supervisors: Allen R. Hanson and Prashant Shenoy
- June 2000 B.S. Engineering, Minor Computer Science. Swarthmore College  
Thesis: Stereo Vision for Robot Navigation  
Supervisor: Bruce Maxwell

### Research

- Spring 2005-Present Computer Vision Lab/Research in Presentation Production for Learning Electronically Lab, University of Massachusetts Amherst; Research Assistant  
MANIC Project: Designed and prototyped a system for automatically saving cogent material from computer, whiteboard, and overhead projector in lectures.
- Spring 2001-Fall 2004 Computer Vision Lab, University of Massachusetts Amherst; Research Assistant  
UVIS Project: Developed an Under Vehicle Inspection System to search for contraband that mosaiced together close field of view cameras images in order to create multiple 2D images that together allowed viewing of 3D information.
- Summer 2000 Swarthmore College; Programmer  
Swarthmore College Robotics Team: Improved on existing person-location software for Swarthmore College competition winning entrant into AAAI 2000 hors d'oeuvre serving competition.
- Summer 1999 Swarthmore College; REU Participant  
Swarthmore College Robotic Team: Designed person-location software for Swarthmore College competition winning entrant into AAAI 1999 hors d'oeuvre serving competition.
- Summer 1998 Swarthmore College; HHMI scholar  
Performed basic research focusing on effects of waveguide on the beam of a laser and rebuilt diode-laser-driven YAG laser
- Summer 1997 University of Maryland College Park; REU Participant  
Worked on project of designing algorithm for creating part-routing scheme through Northrop-Grumman machine shop.

### Teaching Experience

- Summer, Fall 2003 Teaching Associate cs120 Problem Solving with the Internet (undergraduate)
- Spring, Summer, Fall 2004 Primary instructor for the course, supervised graduate student teaching assistants, redesigned and modernized course syllabus and material.
- Spring, Summer 2006
- Fall 2005 Teaching Assistant cs591C Embedded Systems (graduate and undergraduate)  
Primarily acted as lab assistant for project based course.

Fall 2000  
Spring 2003, 2005 Teaching Assistant cs120 Introduction to Problem Solving with Computers (undergraduate)  
Prepared and led discussion sections, held office hours, and graded.

### Work Experience

Fall 2006-Present Research Assistant  
Multimedia Asynchronous Networked Individualized Courseware Project  
Computer Vision Lab/ Research in Presentation Production for Learning Electronically Lab  
Computer Science Department  
University of Massachusetts Amherst.

Summer 2005-Present ColorAndShape.com: Painted and sold artwork at craft fairs

Summer 2002-Fall 2002 Research Assistant  
Galaxy Project  
Computer Vision Lab, Computer Science/Astronomy Department  
University of Massachusetts Amherst.

Spring 2001-Spring 2002 Research Assistant  
Under Vehicle Inspection System Project  
Computer Vision Lab, Computer Science Department  
University of Massachusetts Amherst.

Fall 1997-Spring 2000 Technical support associate  
Swarthmore College Computing Center.

Fall 1996-Spring 1997 Printer support  
Swarthmore College Computing Center.

**Publications**

Wallace B, Adrion WR, Dickson P, Cooper W, Ros I, Watts K. Evolution of a cross-platform, multimedia courseware presentation system. ACM Transactions on Internet Technology (under review).

Dickson P, Adrion WR, Hanson A. Automatic Identification and Storage of Significant Points in a Computer-based Presentation. International Journal of Interactive Technology and Smart Education 2007;4:43-54.

Dickson P, Adrion WR, Hanson A. Automatic Capture of Significant Points in a Computer Based Presentation. In: Proceedings of the Eighth IEEE International Symposium on Multimedia. Washington, DC: IEEE Computer Society, 2006:921-926.

Maxwell BA, Fairfield N, Johnson N, Malla P, Dickson P, Kim S, Wojtkowski S, Stepleton T. A Real-Time Vision Module for Interactive Perceptual Agents. Machine Vision and Applications 2003;14:72-82.

Dickson P, Li J, Zhu Z, Hanson AR, Riseman EM, Sabrin H, Schultz HJ, G. Mosaic Generation for Under Vehicle Inspection. Sixth IEEE Workshop on Applications of Computer Vision, 2002:251-256.

Maxwell BA, Fairfield N, Johnson N, Malla P, Dickson P, Kim S. A Real-Time Vision Module for Interactive Perceptual Agents. In: Proceedings of 2nd International Workshop on Computer Vision Systems, LNCS 2095. Heidelberg: Springer Berlin, 2001:190-200.

Maxwell BA, Meeden LA, Addo NS, P. Dickson P, Fairfield N, Johnson N, Jones EG, Kim S, Malla P, Murphy M, Rutter B, Silk E. REAPER: A Reflexive Architecture for Perceptive Agents. AI Magazine 2001;22:53-66.

Maxwell BA, Meeden LA, Addo N, Brown L, Dickson P, Ng J, Olshfski S, Silk E, Wales J. Alfred: The Robot Waiter Who Remembers You. In: Proceedings of AAAI Workshop on Robotics, July, 1999.

<b>Honors</b>	American Association for Artificial Intelligence, 1999 Robot Contest and Exhibition: First Place <i>Hors d'Oeuvre Anyone?</i> Contest Event. Ben Wegbreit Award for Best Integration Effort Across Multiple AI Disciplines.
<b>Memberships</b>	Sigma Xi. IEEE. IEEE Computer Society. IEEE Education Society. Program committee for the Workshop on Multimedia Technologies for E-Learning (MTEL) at the IEEE International Symposium on Multimedia (ISM2006).
<b>References</b>	Professor W. Richards Adrion (413) 545-2475 adrion@cs.umass.edu Professor Allen R. Hanson (413) 545-3442 hanson@cs.umass.edu Associate Professor Robert N. Moll (413) 545-4315 moll@cs.umass.edu Associate Professor Andrew K. McCallum (413) 545-1323 mccallum@cs.umass.edu