

Curriculum Vitae

Paul E. Dickson

Ithaca College
Computer Science Department
953 Danby St.
Ithaca, NY 14850
pdickson@ithaca.edu
607-274-1599 (office); 413-687-8385 (cell)
<http://jimi.ithaca.edu/~pdickson/>

Education

- August 2008 Ph.D. Computer Science, University of Massachusetts Amherst
Thesis: Automatic Capture and Indexing of Lectures
Chairs: W. Richards Adrion and Allen R. Hanson
- August 2008 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

Teaching Experience

- Ithaca College COMP225 HCI: User Interface Design and Development (Fall 2012)
- Fall 2012-Present COMP171 Principles of Computer Science I
- Hampshire College CS112 Programming Games (Spring 2012) Introduction to programming using Python and Pygame.
- Fall 2008-Spring 2012 CS206 Building Web Applications (January 2012) Server-side web design with Google App Engine.
- CS227 Mobile Computing: Building Applications for Handheld Devices (Spring 2011) Application development on the iPhone/iTouch.
- CS110 Coding Images (Spring 2010, Spring 2011, Fall 2011) Introduction to programming in C through image manipulation.
- CS285 Advanced Video Game Design (January 2011) Course to build a video game from start to finish.
- CS360 Video Game Design 2 (Fall 2010) Continuing video game design on the iPhone/iTouch.
- CS260 Video Game Design (Fall 2009, Fall 2010) Video game design on the iPhone/iTouch.
- CS106 Programming Web Pages for Poets, Artists, and Scientists (Fall 2008, Fall 2009, Fall 2010, Fall 2011) Introductory web design in HTML, CSS, & JavaScript under Linux.
- CS272 Advanced Web Design (Spring 2010) Web design in PHP & MySQL.
- CS210 Art Programming (Spring 2010) Creating artwork in Processing, through programming.

University of Massachusetts
Fall 2000-Spring 2006

CS209 Computer Graphics (Spring 2009, January 2010, Spring 2012) Building a ray-tracing rendering engine in C++.

CS112 Sex, Learning, and Computers (Spring 2009) Seminar in educational technology.

CS214 Computer Vision (Fall 2008) Low level computer vision course in C++.

CS120 Problem Solving with the Internet (Summer 2003, Fall 2003, Spring 2004, Summer 2004, Fall 2004, Spring 2006, Summer 2006) Primary instructor for course, supervised graduate student teaching assistants.

CS591C Embedded Systems (Fall 2005) Teaching assistant and lab assistant.

CS120 Introduction to Problem Solving with Computers (Fall 2000, Spring 2003, Spring 2005) Teaching assistant and discussion section leader.

Research

Fall 2012-Present Ithaca College: Project Manager/Developer PAOL Project: Overseeing, Improving on, and Deploying Presentations Automatically Organized from Lectures system used to automatically record lectures.

Fall 2008-Summer 2012 Hampshire College: Project Manager/Developer PAOL Project: Overseeing and Completing Presentations Automatically Organized from Lectures system used to automatically record lectures.

University of Massachusetts: Research in Presentation Production for Learning Electronically Lab: Supervising graduate students on MANIC project.

Spring 2005-Summer 2008 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 the Under Vehicle Inspection System to search for contraband that mosaiced together images from close-field-of-view cameras 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 Robotics 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.

Work Experience

Summer 2008-Present Visiting Assistant Professor of Computer Science
School of Cognitive Science
Hampshire College

Fall 2006-Summer 2009	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 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 Associate Swarthmore College Computing Center

Publications

Dickson PE, Warshow DI, Goebel AC, Roache CC, Adrion WR. Student Reactions to Classroom Lecture Capture. Proceedings of the 17th Annual Conference on Innovation and Technology in Computer Science Education. 2012:144-149.

Dickson PE. Cabana: A Cross-platform Mobile Development System. Proceedings of the 43rd SIGCSE Technical Symposium on Computer Science Education. 2012:529-534.

Dickson PE. Teaching Mobile Computing Using Cabana. Journal of Computing in Small Colleges. 2012;27:128-134.

Dickson PE. Using Undergraduate Teaching Assistants in a Small College Environment. Proceedings of the 42nd SIGCSE Technical Symposium on Computer Science Education. 2011:75-80.

Dickson PE. Motivating Students Taking CS1 by Using Image Manipulation in C and C++. Journal of Computing in Small Colleges. 2011;26:136-141.

Ssebanakitta E, Dickson PE, Adrion WR. MANIC Content Delivery in a Mobile Application. Frontiers in Education. 2010.

Dickson PE, Arbour DT, Adrion WR, Gentzel A. Evaluation of Automatic Classroom Capture for Computer Science Education. Proceedings of the 15th Annual Conference on Innovation and Technology in Computer Science Education. 2010:88-92.

Dickson PE. Computer Graphics Taught by Building a Rendering Engine: poster session. Journal of Computing in Small Colleges. 2010;25:233-234.

Dickson PE. Experiences Building a College Video Game Design Course. Journal of Computing in Small Colleges. 2010;25:104-110.

Dickson PE, Adrion WR, Hanson AR, Arbour DT. First Experiences with a Classroom Recording System. Proceedings of the 14th Annual Conference on Innovation and Technology in Computer Science Education. 2009:298-302.

Dickson PE, Adrion WR, Hanson AR. Whiteboard Content Extraction and Analysis for the Classroom Environment. Proceedings of the Eighth IEEE International Symposium on Multimedia. 2008:702-707.

Dickson PE, Adrion WR, Hanson AR. Automatic Capture and Presentation Creation from Multimedia Lectures. *Frontiers in Education*. 2008.

Dickson PE, Adrion WR, Hanson AR. Automatic Creation of Indexed Presentations from Classroom Lectures. *Proceedings of the 13th Annual Conference on Innovation and Technology in Computer Science Education*. 2008:12-16.

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. *Proceedings of the Eighth IEEE International Symposium on Multimedia*. 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. 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.

Talks

Dickson PE. iPhone Development: Exploring New Paradigms and New Ways of Having the Rug Pulled Out from Under You. *Smith College*, invited talk. November, 2010.

Dickson PE. Programming Art to Teach the Art of Programming. *Foundation for Psychocultural Research - Hampshire College Program in Culture, Brain, and Development*, conference, *Art on the Brain: Exploring the Intersection of the Arts, Neuroscience, and Society*. June, 2010.

Panels

Games 101: Teaching and Learning at Digital Games: *Playing in the Valley*. March 2012.

Honors

American Association for Artificial Intelligence, 1999 Robot Contest and Exhibition: First Place *Hors d'Oeuvre Anyone?* Contest Event.

Memberships

Sigma Xi.
IEEE.
IEEE Computer Society.
IEEE Education Society.

Other Activities

Member of program committee for the Workshop on Multimedia Technologies for E-Learning (MTEL) at the IEEE International Symposium on Multimedia (ISM2007, ISM2008, ISM2009, ISM2010, ISM2011).

Reviewed papers for IEEE Conference on Computer Vision and Pattern Recognition (CVPR), IEEE International Conference on Vision Systems (ICVS), IEEE Workshop on Applications of Computer Vision (WACV), and others.