

Lisa Anthony

Contact

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Current Position

Senior Engineer, User-Centered Interfaces Group
Lockheed Martin Advanced Technology Laboratories, Cherry Hill, NJ

Education

Doctor of Philosophy, Human-Computer Interaction (HCI), December 2008	Bachelor of Science/Master of Science, Computer Science, December 2002
Master of Science, HCI, December 2006	Drexel University, Philadelphia, PA
Carnegie Mellon University, Pittsburgh, PA	Cumulative GPA: 3.98 on 4.0 scale

HCI Skills

Contextual Inquiry, Cognitive Walkthrough, Think Aloud, Heuristic Analysis, Keystroke-Level Modeling, Interviews, Surveys/Questionnaires, Empirical Methods, Statistical Analysis

Work Experience

Graduate Research Assistant

Pittsburgh Science of Learning Center, Carnegie Mellon University, Pittsburgh PA
August 2004 to October 2008

- * Conducted empirical study comparing various input modalities for entering algebraic equations on the computer for speed, errors, and user preferences
- * Collected preliminary evidence on advantages of handwriting input for human learning
- * Explored and adapted tools for handwriting recognition for use with students learning algebra equation solving and implemented prototype system

Summer Intern

Fuji-Xerox Palo Alto Laboratory (FXPAL), Palo Alto, CA
June 2007 to September 2007

- * Member of interdisciplinary team designing and implementing a complex system
- * Guided HCI design process of requirements analysis followed by iterative design and evaluation of prototypes (further details pending patent)

Graduate Research Assistant

Pittsburgh Advanced Cognitive Tutor Center, Carnegie Mellon University, Pittsburgh PA
September 2002 to August 2004

- * Conducted Wizard-of-Oz study assessing feasibility of allowing students to ask directed questions during mathematics problem solving in a Cognitive Tutor
- * Implemented in a team prototype system to support such question-asking
- * Conducted research study comparing effectiveness of various instruction/answer styles given to students when they ask questions during problem solving

Research Assistant

Geometric and Intelligent Computing Laboratory, Drexel University, Philadelphia PA
September 2001 to Sept 2002; Sept 1999 to May 2000; Sept 2000 to May 2001

- * Developed conceptual design tool with support for annotation of design intent, targeted at engineering designers in mechatronics domain
- * Master's thesis work: using genetic programming to "solve" the board game Acquire

Guest Researcher

OpenCASCADE, Matra DataVision, Paris France
June 2001 to September 2001

- * Forged alliance between OpenCASCADE in Europe & GICL in North America
- * Self-trained in their 3D solid modeling kernel and application framework

Summer Guest Researcher

Design Process Group, National Institute of Standards & Technology, Gaithersburg MD
May 2000 to August 2000

- * Part of international development team for NIST Design Repository Project
- * Designed and developed web interface for querying the design repository

Technical Skills

Operating Systems

Windows 9x/NT/2000/XP
Solaris 2.6/7, *NIX

Software

Macromedia Dreamweaver
Adobe InDesign
Adobe Photoshop
Adobe Illustrator
Microsoft Office Suite
Maple V, Matlab
SPSS, JMP for statistics

Languages & APIs

Java & JFC/Swing
C#, C++
Perl, Bash, shell scripting
HTML, CSS
LISP, production rules

Development Tools

Eclipse IDE
Microsoft Visual Studio
Unix command-line tools

Teaching

Instructor

Human-Computer Interaction for Computer Scientists
Spring 2007
Human-Computer Interaction Institute, Carnegie Mellon University, Pittsburgh PA

Teaching Assistant

Introduction to Human-Computer Interaction Methods
Fall 2005
Human-Computer Interaction Institute, Carnegie Mellon University, Pittsburgh PA

Service & Community

Volunteer, Philadelphia Animal Welfare Society (PAWS), 2010-present
Volunteer, Philadelphia Clean Air Council, 2009-present
Women@SCS Graduate Student Council Member, 2002-2008
Member, SCS Graduate Women Mentoring Program, 2007-2008
Contributing Editor, SCS Guide to Living in Pittsburgh, 2007-2008
Coordinator, CMU HCII Ph.D. Defense Toasts, 2006-2007
Coordinator, CMU HCII Ph.D. Biweekly Lunch Seminars, 2005-2007
Organizing Member, Technology Night for Girls at Pittsburgh's CyberConXion, in association with CMU's Entertainment Technology Center, 2005-2006
Member, CMU HCII Admissions Committee, 2003
Member, Drexel Mathematics and Computer Science Society, 1997-2002

Honors & Awards

National Science Foundation Graduate Research Fellowship, 2002-2005
Delaware Valley Technical Recruiters Network Annual Award for Computer Science, 2001
Computing Research Association's National Outstanding Undergraduate Award, 2001
AT&T Labs Internet Platforms Technology Organization Research Fellowship, 2000
National Science Foundation Research Experience for Undergraduates Supplement, 1999
1999 Award for Outstanding Industry, Leadership, and Academics in Computer Science
Drexel University Honors Program, March 1998 to 2002
Drexel College of Arts & Sciences Dean's List, 1997 to 2002

Selected Publications

Anthony, Lisa; Yang, Jie; Koedinger, Kenneth R. (2007) "Adapting Handwriting Recognition for Applications in Algebra Learning." Proceedings of the ACM Workshop on Educational Multimedia and Multimedia Education (EMME'2007), Augsburg, Germany, pp. 47-56.

Anthony, Lisa; Yang, Jie; Koedinger, Kenneth R. (2007) "Benefits of Handwritten Input for Student Learning Algebra Equation Solving." Proceedings of the International Conference on Artificial Intelligence in Education (AIED'2007), Los Angeles, CA, pp. 521-523.

Anthony, Lisa; Yang, Jie; Koedinger, Kenneth R. (2006) "Towards the Application of a Handwriting Interface for Mathematics Learning." IEEE Conference on Multimedia and Expo (ICME'2006), Toronto, Canada, pp. 2077-2080.

Anthony, Lisa; Yang, Jie; Koedinger, Kenneth R. (2005) "Evaluation of Multimodal Input for Entering Mathematical Equations on the Computer." ACM Conference on Human Factors in Computing Systems (CHI 2005), Portland, OR, pp. 1184-1187.

Anthony, Lisa; Corbett, Albert; Wagner, Angela Z.; Stevens, Scott M.; Koedinger, Kenneth R. (2004) "Student Question-Asking Patterns in an Intelligent Algebra Tutor." Proceedings of the International Conference on Intelligent Tutoring Systems, Maceio, Brazil, pp. 455-467.

Anthony, Lisa. (2002) "Evolving Board Evaluation Functions for a Complex Strategy Game." Master's thesis, Department of Computer Science, Drexel University.

Anthony, Lisa; Regli, William C.; John, Jon E.; Lombeyda, Santiago V. (2001) "An Approach to Capturing Structure, Behavior and Function of Artifacts in CAD." Transactions of the ASME, the Journal of Computing and Information Science in Engineering 1(2), pp. 186-192.

Representative Coursework

Introduction to HCI Methods
Advanced Topics in User Interface Technology
Cognitive Modeling & Intelligent Tutoring Systems
Cognitive Systems
Machine Learning
Interface & Interaction Design
Cognitive Psychology
Psychology of HCI
Graphical User Interfaces
Systems Architecture
Software Engineering
Software Design
Concurrent Programming
Artificial Intelligence
Knowledge-Based Agents