

JOHN T. STASKO
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EDUCATIONAL BACKGROUND

Ph.D.	1989	Brown University	Computer Science
Sc.M.	1985	Brown University	Computer Science
B.S.	1983	Bucknell University	Mathematics

EMPLOYMENT HISTORY

Professor	School of Interactive Computing Georgia Institute of Technology	2007-present
Professor	College of Computing Georgia Institute of Technology	2004-2007
Associate Professor	College of Computing Georgia Institute of Technology	1995-2004
Assistant Professor	College of Computing Georgia Institute of Technology	1989-1995

Appointments held:

Associate Chair	School of Interactive Computing Georgia Institute of Technology	2007-present
Visiting Scientist	Pacific NW National Laboratory Richland, WA	Spring 2008
Visiting Researcher	Microsoft Research Redmond, WA	Fall 2007
Director of Graduate Studies	College of Computing Georgia Institute of Technology	1995-1999
Associate Director for Research	Computing GVU Center Georgia Institute of Technology	1994-1996

CURRENT FIELDS OF INTEREST

Human-Computer Interaction, Information Visualization, Visual Analytics, Peripheral Awareness, Software Visualization

Dr. Stasko directs the Information Interfaces Research Group, whose focus is on helping people harness and make use of the huge volume of data and information confronting them every day. The group seeks to create and evaluate new techniques and tools for analyzing and presenting information to people to help them make decisions and to simplify, not complicate their lives.

I. TEACHING AND ADVISING

A. Courses Taught

<u>Quarter /Year</u>	<u>Course</u>		<u>Number of Students</u>	<u>Comments</u>
Fall 1989	ICS 3410	Survey of Programming Languages	52	
Winter 1990	ICS 8113J	Program Visualization	13	new course
Spring 1990	ICS 4390	Computer Graphics	45	
Fall 1990	ICS 3410	Survey of Programming Languages	53	
Winter 1991	ICS 4390	Computer Graphics	15	
Winter 1991	ICS 8113J	User Interface System Design	20	new course
Summer 1991	ICS 4156	Introduction to Theory of Computing II	35	
Fall 1991	CS 3410	Survey of Programming Languages	50	
Winter 1992	CS 4390	Computer Graphics	30	
Spring 1992	CS 8113F	Visualization in Programming	12	
Fall 1992	CS 6751	Human-Computer Interaction	45	
Fall 1992	CS 4156	Introduction to Theory of Computing II	40	
Fall 1993	CS 6751	Human-Computer Interaction	60	
Winter 1994	CS 3410	Survey of Programming Languages	45	
Winter 1994	CS 7390	Software Visualization	17	new course
Fall 1994	CS 3411	Programming Language Concepts	33	new course
Winter 1995	CS 3158	Design and Analysis of Algorithms	36	
Winter 1995	CS 6395	Principles of User Interface Software	18	
Fall 1995	CS 6751	Human-Computer Interaction	45	
Winter 1996	CS 3158	Design and Analysis of Algorithms	42	
Winter 1996	CS 7390	Software Visualization	13	
Fall 1996	CS 4753	Human Factors in Software Development	38	

Winter 1997	CS 6751	Human-Computer Interaction	22	
Fall 1997	CS 3158	Design and Analysis of Algorithms	40	
Winter 1998	CS 7390	Software Visualization	11	
Fall 1998	CS 3158	Design and Analysis of Algorithms	33	
Winter 1999	CS 6751	Human-Computer Interaction	35	
Fall 1999	CS 7450	Information Visualization	35	new course
Spring 2000	CS 4750	User Interface Design	37	
Fall 2000	CS 1312	Introduction to Object-Oriented Programming	130	
Fall 2000	CS 7450	Information Visualization	22	
Fall 2001	CS 6750	Human-Computer Interaction	43	
Fall 2001	CS 8804	The Essence of Computing	1	new course
Spring 2002	CS 1322	Introduction to Object-Oriented Programming	250	
Spring 2002	CS 7450	Information Visualization	38	
Fall 2002	CS 6750	Human-Computer Interaction	32	
Spring 2003	CS 7450	Information Visualization	28	
Fall 2003	CS 4750	User Interface Design	40	
Spring 2004	CS 1322	Introduction to Object-Oriented Programming	250	
Spring 2004	CS 7450	Information Visualization	39	
Spring 2005	CS 1322	Introduction to Object-Oriented Programming	260	
Spring 2005	CS 7450	Information Visualization	28	
Fall 2005	CS 1321	Introduction to Computing	70	
Spring 2006	CS 7450	Information Visualization	32	
Fall 2006	CS 1331	Introduction to Object-Oriented Programming	115	
Spring 2007	CS 6750	Human-Computer Interaction	35	

	CS 8903	Research in InfoVis	8
Fall 2008	CS 1331	Introduction to Object-Oriented Programming	160
Spring 2009	CS 4460	Intro to Information Visualization	17
	CS 7450	Information Visualization	40

B. Individual Student Guidance

1. Postdoctoral Fellows Supervised

Amnon Shabo (joint with Mark Guzdial)
Sept. 1995 - Aug. 1997

Carsten Görg (joint with Mary Jean Harrold)
July 2005 – present

2. Ph. D. Students Supervised

Mariano Garcia (co-advisor with Albert Badre)
Graduation: Summer 1993

"Effects of Level of Abstractness of Icons Used to Represent Programming Language Concepts"
Associate Professor, Cayey University, Puerto Rico

Eileen Kraemer

Graduation: Summer 1995

"A Framework, Methods, and Tools for the Visualization of Concurrent Computations"

Professor & Dept. Chair, University of Georgia, NSF Career Award winner

W. Keith Edwards

Graduation: Fall 1995

"Meta-Information Sharing in Collaborative Support Environments"
Associate Professor, Georgia Institute of Technology

Dean Jerding

Graduation: Fall 1997

"Visualizing Patterns of Interaction in Program Executions"
President, Infinovate Corp.

Brad Topol (co-advisor with Mustaque Ahamad)

Graduation: Spring 1998

"A Framework for the Development of Wide Area Applications"
IBM

D. Scott McCrickard

Graduation: Summer 2000

"Maintaining Information Awareness in a Dynamic Environment: Animation as a Communication Mechanism"
Associate Professor, Virginia Tech

Q. Alex Zhao

Graduation: Fall 2001

"Opportunistic Interfaces for Promoting Community Awareness"

Software development engineer, Amazon.com

Dugald Hutchings

Graduation: Summer 2006

"Making Multiple Monitors More Manageable"

Assistant Professor, Elon University

Jun Xiao

Graduation: Fall 2006

"Empirical Studies on Embodied Conversational Agents"

Research Scientist, Hewlett-Packard

Ji Soo Yi

Graduation: Summer 2008 (Industrial & Systems Engineering)

"Visualized Decision Making: Development and Application of Information

Visualization Techniques to Improve Decision Quality of Nursing Home Choice"

Assistant Professor, Purdue University

James Eagan

Graduation: Fall 2008

"The Buzz: Supporting Extensively Customizable Information Awareness Applications"

Post-doctoral researcher, University of Paris South (France)

Christopher Plaue

Graduation: Summer 2009

"Exploring and Visualizing the Impact of Multiple Shared Displays on Collocated Meeting Practices"

3. Current Ph. D. students

Zachary Pousman, passed Qualifier

Youn-ah Kang, passed Qualifier

Zhicheng Liu, passed Qualifier

4. M.S. Thesis Students supervised.

Joseph Wehrli

August 1993

"Mapping Massively Parallel Computations to Animations to Support Debugging"

C. Awards

William A. gus Baird Teaching Award, College of Computing, Georgia Tech, 2005

II. RESEARCH AND CREATIVE SCHOLARSHIP

A. Thesis

"TANGO: A Framework and System for Algorithm Animation"
May 1989
Advisor: Steven P. Reiss
Brown University

B. Published Journal Papers

Stasko, J. and Vitter, J., "Pairing Heaps: Experiments and Analysis," *Communications of the ACM*, vol. 30, no. 3, pp. 234-249, March 1987, pp. 234-249.

Stasko, J., "The Path-Transition Paradigm: A Practical Methodology for Adding Animation to Program Interfaces," *Journal of Visual Languages and Computing*, vol. 1, no. 3, pp. 213-236, September 1990.

Stasko, J., "TANGO: A Framework and System for Algorithm Animation," *IEEE Computer*, vol. 23, no. 9, pp. 27-39, September 1990.

Kraemer, E. and Stasko, J., "The Visualization of Parallel Systems: An Overview," *Journal of Parallel and Distributed Computing*, vol. 18, no. 2, pp. 105-117, June 1993.

Stasko, J. and Kraemer, E., "A Methodology for Building Application-Specific Visualizations of Parallel Programs," *Journal of Parallel and Distributed Computing*, vol. 18, no. 2, pp. 258-264, June 1993.

Stasko, J., "Animation in User Interfaces: Principles and Techniques," *Trends in Software*, Special issue on User Interface Software, no. 1, pp. 81-101, 1993.

Garcia, M., Badre, A. and Stasko, J., "Development and Validation of Icons Varying in their Level of Abstractness," *Interacting with Computers*, vol. 6, no. 2, pp. 191-211, June 1994.

Shilling, J. and Stasko, J., "Using Animation to Design Object-Oriented Systems," *Object-Oriented Systems*, vol. 1, no. 1, pp. 5-19, September 1994

Mukherjea, S. and Stasko, J., "Toward Visual Debugging: Integrating Algorithm Animation Capabilities within a Source Level Debugger," *ACM Transactions on Computer-Human Interaction*, vol. 1, no. 3, pp. 215-244, September 1994.

Recker, M., Ram, A., Shikano, T., Li, G., Stasko, J., "Cognitive Media Types for Multimedia Information Access", *Journal of Educational Multimedia and Hypermedia*, vol. 4, no. 2/3, pp. 185-210, 1995.

Stasko, J. and McCrickard, D., "Real Clock Time Animation Support for Developing Software Visualizations", *Australian Computer Journal*, vol. 27, no. 3, pp. 118-128, November 1995.

Stasko, J., "Future research directions in human-computer interaction," *ACM Computing Surveys*, vol. 28, no. 4es, article 145, December 1996.

Shabo, A., Guzdial, M. and Stasko, J., "An Apprenticeship-based Multimedia Courseware for Computer Graphics Studies Provided on the World Wide Web," *Journal of Computers and Education*, vol. 29, no. 2/3, pp. 103-116, December 1997.

Kraemer, E. and Stasko, J., "Accurate and Informative Portrayal of Concurrent Executions," *Concurrency*, vol. 6, no. 1, pp. 36-46, Jan.-Mar. 1998.

Topol, B., Stasko, J. and Sunderam, V., "Dual Timestamping Methodology for Visualizing Distributed Application Behaviour", *International Journal of Parallel and Distributed Systems and Networks*, vol. 1, no. 2, pp. 43-50, 1998.

Jerding, D. and Stasko, J., "The Information Mural: A Technique for Displaying and Navigating Large Information Spaces," *IEEE Transactions on Visualization and Computer Graphics*, vol. 4, no. 3, pp. 257-271, Jul-Sep. 1998.

Topol, B., Stasko, J. and Sunderam, V., "PVaniM: A Tool for Visualization in Network Computing Environments, *Concurrency: Practice & Experience*, vol. 10, no. 14, pp. 1197-1222, 1998.

Ram, A., Catrambone, R., Guzdial, M., Kehoe, C., McCrickard, D. and Stasko, J., "PML: Representing procedural domains for multimedia presentations," *IEEE Multimedia*, vol. 6, no. 2, pp. 40-52, April-June 1999.

Carothers, C., Topol, B., Fujimoto, R., Stasko, J. and Sunderam, V., "Visualizing Parallel Simulations that Execute in Network Computing Environments," *Future Generation Computer Systems*, vol. 15, no. 4, pp. 513-529, July 1999.

Byrne, M., Catrambone, R. and Stasko, J., "Evaluating Animations as Student Aids in Learning Computer Algorithms", *Computers & Education*, vol. 33, no. 4, pp. 253-278, 1999.

Stasko, J., Catrambone, R., Guzdial, M. and McDonald, K., "An Evaluation of Space-Filling Information Visualizations for Depicting Hierarchical Structures," *International Journal of Human-Computer Studies*, vol. 53, no. 5, pp. 663-694, November 2000.

Kehoe, C., Stasko, J. and Taylor, A., "Rethinking the Evaluation of Algorithm Animations as Learning Aids: An Observational Study," *International Journal of Human-Computer Studies*, vol. 54, no. 2, pp. 265-284, February 2001.

Hundausen, C., Douglas, S. and Stasko, J., "A Meta-Study of Algorithm Visualization Effectiveness", *Journal of Visual Languages and Computing*, vol. 13, no. 3, pp. 259-290, June 2002.

McCrickard, D.S., Catrambone, R., Chewar, C.M. and Stasko, J., "Establishing Tradeoffs that Leverage Attention for Utility: Empirically Evaluating Information Display in Notification Systems," *International Journal of Human-Computer Studies*, vol. 58, no. 5, pp. 547-582, May 2003.

Pousman, Z., Iachello, G., Fithian, R., Moghazy, J., and Stasko, J., "Design Iterations for a Location-Aware Event Planner," *Personal and Ubiquitous Computing*, vol. 8, no. 2, pp. 117-125, May 2004.

Amar, R. and Stasko, J., "Knowledge Precepts for Design and Evaluation of Information Visualizations," *IEEE Transactions on Visualization and Computer Graphics*, vol. 11, no. 4, pp. 432-442, July/August 2005.

Hutchings, D. Stasko, J., and Czerwinski, M., "Distributed display environments," *Interactions*, vol. 12, no. 6, pp. 50-53, Nov-Dec. 2005.

Yi, J.S., Melton, R., Stasko, J. and Jacko, J., "Dust n Magnet: A new Metaphor for Information Visualization," *Information Visualization*, vol. 4, no. 4, pp. 239-256, Winter 2005.

Conti, G., Abdullah, K., Grizzard, J., Stasko, J., Copeland, J., Ahamad, M., Owen, H., Lee, C., "Countering Security Information Overload through Alert and Packet Visualization," *IEEE Computer Graphics & Applications*, vol. 26, no. 2, pp. 60-70, March/April 2006.

Pousman, Z., Stasko, J.T. and Mateas, M., "Casual Information Visualization: Depictions of Data in Everyday Life," *IEEE Transactions on Visualization and Computer Graphics*, (Paper presented at InfoVis '07), vol. 13, no. 6, pp. 1145-1152, November/December 2007, pp. 1145-1152.
(27 of 116 = 23% papers accepted)

Yi, J.S., Kang, Y.A., Stasko, J.T. and Jacko, J.A., "Toward a Deeper Understanding of the Role of Interaction in Information Visualization," *IEEE Transactions on Visualization and Computer Graphics*, (Paper presented at InfoVis '07), vol. 13, no. 6, pp. 1224-1231, November/December 2007.
(27 of 116 = 23% papers accepted)

Kerren, A., Stasko, J.T., Fekete, J.-D., and North, C., "Workshop report: information visualization—human-centered issues in visual representation, interaction, and evaluation," *Information Visualization*, vol. 6, no. 3, pp. 189-196, Winter 2007.

Plaisant, C. et al, "Evaluating Visual Analytics at the 2007 VAST Symposium Contest," *IEEE Computer Graphics and Applications*, vol. 28, no. 2, pp. 12-21, March/April 2008.

Elmqvist, N., Stasko, J., and Tsigas, P., "DataMeadow: A Visual Canvas for Analysis of Large-Scale Multivariate Data," *Information Visualization*, vol. 7, no. 1, pp. 18-33, Spring 2008.

Stasko, J., Görg, C., and Liu, Z., "Jigsaw: Supporting Investigative Analysis through Interactive Visualization", *Information Visualization*, Vol. 7, No. 2, pp. 118-132, Summer 2008.

Robertson, G., Fernandez, R., Fisher, D., Lee, B., and Stasko, J., "Effectiveness of Animation in Trend Visualization", *IEEE Transactions on Visualization and Computer Graphics*, (Paper presented at InfoVis '08), Vol. 14, No. 6, pp. 1325-1332, November/December 2008.
(28 of 107 = 26% papers accepted)

Romero, M., Summet, J., Stasko, J., and Abowd, G., "Viz-A-Vis: Toward Visualizing Video through Computer Vision", *IEEE Transactions on Visualization and Computer Graphics*, (Paper presented at InfoVis '08), Vol. 14, No. 6, pp. 1261-1268, November/December 2008.
(28 of 107 = 26% papers accepted)

Liu, Z., Nersessian, N., and Stasko, J., "Distributed Cognition as a Theoretical Framework for Information Visualization", *IEEE Transactions on Visualization and Computer Graphics*, (Paper presented at InfoVis '08), Vol. 14, No. 6, pp. 1173-1180, November/December 2008.
(28 of 107 = 26% papers accepted)

C. Published Books and Parts of Books

1. Books

Software Visualization: Programming as a Multimedia Experience, edited by J. Stasko, J., Domingue, J., Brown, M. and Price, B., MIT Press, Cambridge, MA, 1998.

Information Visualization: Human-Centered Issues and Perspectives, edited by A. Kerren, J. Stasko, J.-D. Fekete, and C. North, Springer, 2008.

2. Book Chapters

Stasko, J., "Smooth Continuous Animation for Portraying Algorithms and Processes" *Software Visualization*, Eds: Stasko, Domingue, Brown and Price, MIT Press, 1998, Chapter 8, pp. 103-118.

Stasko, J., "Building Software Visualizations through Direct Manipulation and Demonstration" *Software Visualization*, Eds: Stasko, Domingue, Brown and Price, MIT Press, 1998, Chapter 14, pp. 187-204.

Stasko, J., "Empirically Assessing Algorithm Animations as Learning Aids" *Software Visualization*, Eds: Stasko, Domingue, Brown and Price, MIT Press, 1998, Chapter 28, pp. 419-438.

Kerren, A. and Stasko, J., "Algorithm Animation – Introduction", Proceedings of the International Dagstuhl Seminar on Software Visualization, Schloss Dagstuhl, May 2001, appears in *Software Visualization State-of-the-Art Survey*, LNCS 2269, Stephan Diehl (ed.), Springer Verlag, pp. 1-15, 2001.

Demetrescu, C., Finocchi, I. and Stasko, J., "Specifying Algorithm Visualizations: Interesting Events or State Mapping?", Proceedings of the International Dagstuhl Seminar on Software Visualization, Schloss Dagstuhl, May 2001, appears in *Software Visualization State-of-the-Art Survey*, LNCS 2269, Stephan Diehl (ed.), Springer Verlag, pp. 16-30, 2001.

Stasko, J. and Hundhausen, C. "Algorithm Visualization", *Computer Science Education Research*, Eds: S. Fincher and M. Petre, RoutledgeFalmer, London, 2004, pp. 199-228.

Stasko, J. "Data Structure Visualization", *Handbook of Data Structures and Applications*, Eds: D. Mehta and S. Sahni, Chapman & Hall/CRC, 2004, Chapter 44, pp. 44-1 – 44-13.

Catrambone, R., Stasko, J., and Xiao, J., "ECA as User Interface Paradigm," *From Brows to Trust: Evaluating Embodied Conversational Agents*, Eds: Z. Ruttkay and C. Pelachaud, Kluwer, 2004, pp. 239-267.

Fekete, J.-D., van Wijk, J., Stasko, J. and North, C., "The Value of Information Visualization," *Information Visualization: Human-Centered Issues and Perspectives*, Eds: A. Kerren, J. Stasko, J.-D. Fekete, and C. North, pp. 1-18, 2008.

Kerren, A., Stasko, J. and Dykes, J., "Teaching Information Visualization," *Information Visualization: Human-Centered Issues and Perspectives*, Eds: A. Kerren, J. Stasko, J.-D. Fekete, and C. North, pp. 65-91, 2008.

D. Editor for Proceedings and Collections

DePauw, W., Reiss, S., and Stasko, J. editors, Workshop on Software Visualization, 2001 International Conference on Software Engineering, Toronto, CA, May 2001.

Diehl, S., Stasko, J., and Spencer, S. editors, *Proceedings of the 2003 ACM Symposium on Software Visualization*, San Diego, CA, June 2003.

Stasko, J. and Diehl, S., editors, *Information Visualization*, Special issue on Software Visualization, vol. 3, no. 3, Autumn 2004.

Stasko, J. and Ward, M., editors, *Proceedings of the 2005 IEEE Symposium on Information Visualization*, Minneapolis, MN, October 2005.

Ward, M.O. and Stasko, J. T., Introduction to the Special Issue, *Information Visualization*, vol. 5, no. 2, pp. 111, 2006.

Stasko, J. T. and Ward, M.O., Guest Editorial: InfoVis 2005, *IEEE Transactions on Visualization and Computer Graphics*, vol. 12, no. 4, pp. 535, 2006.

Stasko, J. and van Wijk, J., editors, *IEEE Transactions on Visualization and Computer Graphics*, vol. 12, no. 5, Sept./Oct. 2006, (Proceedings from the 2006 IEEE Symposium on Information Visualization).

Cook, K., Earnshaw, R., and Stasko, J., "Discovering the Unexpected," Guest Editors' Introduction, *IEEE Computer Graphics and Applications*, vol. 27, no. 5, pp. 15-19, September/October 2007.

E. Conference Presentations

1. Invited Keynote Addresses

SoftVis '99, 3rd Australian Workshop on Software Visualization
December 1999, Sydney, Australia

International Computing Education Research Workshop (ICER) 2007
September 2007, Atlanta, GA

IEEE Symposium on Visual Languages and Human-Centered Computing 2008
ACM 2008 Symposium on Software Visualization
September 2008, Herrsching, Germany

2. Conference presentations with Proceedings (refereed)

Reiss, S. and Stasko, J., "The Brown Workstation Environment: A User Interface Design Toolkit," *Proceedings of the IFIP WG 2.7 Working Conference on Engineering for Human-Computer Interaction*, pp. 215-228, August, 1989.

Stasko, J., "A Practical Animation Language for Software Development," *Proceedings of the 1990 IEEE International Conference on Computer Languages*, pp. 1-10, March 1990.

(32 of 138 = 23% papers accepted.)

Stasko, J., "Simplifying Algorithm Animation with TANGO," *Proceedings of the 1990 IEEE Workshop on Visual Languages*, pp. 1-6, October 1990.

Stasko, J., "Using Direct Manipulation to Build Algorithm Animations by Demonstration," *Proceedings of the ACM SIGCHI 1991 Conference on Human Factors in Computing Systems*, pp. 307-314, May 1991.

(30 of 200 = 15% papers accepted.)

Appelbe, W. and Stasko, J., "Utilizing Program Visualization and Animation Techniques to Aid Parallel Program Development and Debugging" (Short paper), *Proceedings of the ACM/ONR 1991 Workshop on Parallel and Distributed Debugging*, pp. 207-209, May 1991.

Das, S., Fujimoto, R. and Stasko, J., "Animating the Execution of Time Warp Programs," *Proceedings of the 6th Workshop on Parallel and Distributed Simulation*, pp. 195-196, January 1992. (Presented as poster paper.)

Badre, A., Beranek, M., Morris, J., and Stasko, J., "Evaluating Program Visualization Systems as Instructional Aids," *Proceedings of the 5th International Conference on Computers and Learning*, June 1992. Published in *Lecture Notes in Computer Science*, Volume 602, pp. 87-99, Springer-Verlag.

Turner, C. and Stasko, J., "Tidy Animations of Tree Algorithms," *Proceedings of the 1992 IEEE International Workshop on Visual Languages*, pp. 216-218, September 1992. (Presented as poster paper.)

Stasko, J. and Patterson, C., "Understanding and Characterizing Software Visualization Systems," *Proceedings of the 1992 IEEE International Workshop on Visual Languages*, pp. 3-10, September 1992.

Stasko, J., Badre, A. and Lewis, C., "Do Algorithm Animations Assist Learning? An Empirical Study and Analysis," *Proceedings of the ACM/INTERACT INTERCHI 1993 Conference on Human Factors in Computing Systems*, pp. 61-66, April 1993. (62 of 330 = 19% papers accepted.)

Mukherjea, S. and Stasko, J., "Applying Algorithm Animation Techniques for Program Tracing, Debugging, and Understanding," *Proceedings of the 15th International Conference on Software Engineering*, pp. 456-465, May 1993.

Appelbe, W., Kraemer, E., Lakshmanan, B., Stasko, J. and Wehrli, J., "Supporting Parallel Program Debugging through Graphics" (Short paper), *Proceedings of the ACM/ONR 1993 Workshop on Parallel and Distributed Debugging*, pp. 172-174, May 1993.

Wehrli, J. and Stasko, J., "Interactive Three-Dimensional Visual Debugging in Massively Parallel Computation" (Short paper), *Proceedings of the ACM/ONR 1993 Workshop on Parallel and Distributed Debugging*, pp. 235-237, May 1993.

Stasko, J. and Wehrli, J., "Three-Dimensional Computation Visualization," *Proceedings of the 1993 IEEE International Symposium on Visual Languages*, pp. 100-107, August 1993.

Hudson, S. and Stasko, J., "Animation Support in a User Interface Toolkit: Flexible, Robust, and Reusable Abstractions," *Proceedings of UIST 1993*, pp. 57-67, November 1993.

(30 of 100 = 30% papers accepted.)

Kraemer, E. and Stasko, J., "Toward Flexible Control of the Temporal Mapping from Concurrent Program Events to Animations," *Proceedings of the 1994 International Parallel Processing Symposium*, pp. 902-908, April 1994.

(126 of 385 = 33% papers accepted.)

Lawrence, A., Badre, A. and Stasko, J., "Empirically Evaluating the Use of Animations to Teach Algorithms," *Proceedings of 1994 IEEE International Symposium on Visual Languages*, pp. 48-54, October 1994.

Kraemer, E. and Stasko, J., "Issues in the Comprehension of Parallel Programs," *Proceedings of the 3rd Workshop on Program Comprehension*, pp. 116-125, November 1994.

Gu, W., Eisenhauer, G., Kraemer, E., Schwan, K. Stasko, J., Vetter, J. and Mallavarapu, N., "Falcon: On-line Monitoring and Steering of Large-Scale Parallel Programs," *Proceedings of the 5th Symposium on the Frontiers of Massively Parallel Computing*, pp. 422-429, February 1995.

Topol, B., Stasko, J. and Sunderam, V., "Integrating Visualization Support into Distributed Computing Systems", *Proceedings of the 15th International Conference on Distributed Computing Systems*, pp. 19-26, May 1995.

(60 of 170 = 35% papers accepted.)

Jerding, D., and Stasko, J., "The Information Mural: A Technique for Displaying and Navigating Large Information Spaces," *Proceedings of the IEEE Symposium on Information Visualization*, pp. 43-50, October 1995.

(8 of 30 = 27% papers accepted.)

Jerding, D., and Stasko, J., "Using Information Murals in Visualization Applications" (Demonstration), *Proceedings of UIST 1995*, pp. 73-74, November 1995.

Ayers, E. and Stasko, J., "Using Graphic History in Browsing the World Wide Web," *Proceedings of the Fourth International World Wide Web Conference*, December 1995.

Carlson, D., Guzdial, M., Kehoe, C., Shah, V. and Stasko, J., "WWW Interactive Learning Environments for Computer Science Education," *Proceedings of the ACM SIGCSE '96 Technical Symposium on Computer Science Education*, pp. 290-294, February 1996.

Shabo, A., Guzdial, M. and Stasko, J., "Computer Science Apprenticeship," *Proceedings of the Seventh Israeli Conference on Computer-Based Systems*, pp. 77-82, June 1996.

Byrne, M., Guzdial, M., Ram, P., Catrambone, R., Ram, A., Stasko, J., Shippey, G., and Albrecht, F., "The Role of Student Tasks in Assessing Cognitive Media Types," *Proceedings of the 1996 International Conference on the Learning Sciences*, pp. 114-119, July 1996.

Shabo, A., Guzdial, M. and Stasko, J., "Computer Science Apprenticeship: Creating Support for Intermediate Computer Science Students," *Proceedings of the 1996 International Conference on the Learning Sciences*, pp. 308-315, July 1996.

Shippey, G., Ram, A., Albrecht, F., Roberts, J., M., Guzdial, M., Catrambone, Byrne, M., Stasko, J., "Exploring Interface Options in Multimedia Educational Environments," *Proceedings of the 1996 International Conference on the Learning Sciences*, pp. 496-501, July 1996. (Presented as poster paper.)

Shabo, A., Guzdial, M. and Stasko, J., "Addressing Student Problems in Learning Computer Graphics," SIGGRAPH '96 Educators Forum, appears in *Computer Graphics*, vol. 30, no. 3, pp. 38-40, August 1996.

Stasko, J. and Muthukumarasamy, J., "Visualizing Program Executions on Large Data Sets," *Proceedings of the IEEE 1996 International Symposium on Visual Languages*, pp. 166-173, September 1996.

Stasko, J., "Using Student-Built Algorithm Animations as Learning Aids," *Proceedings of the ACM SIGCSE '97 Technical Symposium on Computer Science Education*, pp. 25-29, February 1997.
(75 of 177 = 42% papers accepted.)

Stasko, J., "Supporting Student-Built Algorithm Animation as a Pedagogical Tool" (Formal Demonstration), *Proceedings of the ACM SIGCHI 1997 Conference on Human Factors in Computing Systems -- Extended Abstracts*, pp. 24-25, March 1997.

Jerding, D., Stasko, J. and Ball, T., "Visualizing Interactions in Program Executions," *Proceedings of the 19th International Conference on Software Engineering*, pp. 360-370, May 1997.

Topol, B., Stasko, J., and Sunderam, V., "The Dual Timestamping Methodology for Visualizing Distributed Application Behavior," *Proceedings of the IASTED International Conference on Distributed and Parallel Systems*, pp. 81-86, June 1997.
(51 of 125 = 41% papers accepted.)

Eisenhauer, G., Gu, W., Kraemer, E., Schwan, K. and Stasko J., "Online Displays of Parallel Programs: Problems and Solutions," *Proceedings of the International*

Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA '97), pp. 11-20, July 1997.

Carothers, C., Topol, B., Fujimoto, R., Stasko, J., and Sunderam, V., "Visualizing Parallel Simulations in Network Computing Environments: A Case Study," *Proceedings of the 1997 Winter Simulation Conference (WSC '97)*, pp. 110-117, December 1997.

Topol, B., Ahamad, M., and Stasko, J., "Robust State Sharing for Wide Area Distributed Applications," *Proceedings of the 18th International Conference on Distributed Computing Systems*, pp. 554-561, May 1998.
(68 of 305 = 22% papers accepted.)

Zhao, Q. and Stasko, J., "Evaluating Image Filtering Based Techniques in Media Space Applications," *Proceedings of the 1998 Conference on Computer Supported Cooperative Work (CSCW '98)*, pp. 11-18, November 1998.
(41 of 220 = 19% of papers accepted.)

Stasko, J., Guzdial, M. and McDonald, K., "Evaluating Space-Filling Visualizations for Hierarchical Structures" (Short paper), *Proceedings of the 1999 Information Visualization Symposium Late-Breaking Hot Topics*, pp. 35-38, October 1999.

Zhao, Q. and Stasko, J., "What's Happening? The Community Awareness Application" (Short paper), *Proceedings of the CHI 2000 Conference Companion*, pp. 253-254, April 2000.

Stasko, J. and Zhang, E., "Focus+Context Display and Navigation Techniques for Enhancing Radial, Space-Filling Hierarchy Visualizations," *Proceedings of IEEE Information Visualization 2000*, pp. 57-65, October 2000.
(10 of 60 = 17% of full papers accepted.)

Miller, T. and Stasko, J., "The InoCanvas: Information Conveyance through Personalized, Expressive Art" (Short paper), *Proceedings of the CHI 2001 Conference Companion*, pp. 305-306, April 2001.

McCrickard, D. S., Catrambone, R., and Stasko, J., "Evaluating Animation in the Periphery as a Mechanism for Maintaining Awareness," *Proceedings of INTERACT 2001*, pp. 148-156, July 2001. Awarded "Best Paper".
(75 of 223 = 34% of papers accepted.)

Eagan, J., Harrold, M.J., Jones, J. and Stasko, J., "Visually Encoding Program Test Information to Find Faults in Software," *Proceedings of IEEE Information Visualization 2001*, pp. 33-36, October 2001.
(22 of 63 = 35% of papers accepted.)

Hutchings, D. and Stasko, J., "QuickSpace: New Operations for the Desktop Metaphor," (Short paper), *Proceedings of the CHI 2002 Conference Companion*, pp. 802-803, April 2002.

Jones, J. A., Harrold, M. J., and Stasko, J., "Visualization of Test Information to Assist Fault Localization," *Proceedings of IEEE International Conference on Software Engineering (ICSE 2002)*, pp. 467-477, May 2002.
(45 of 303 = 15% of papers accepted.)

Miller, T. and Stasko, J., "Artistically Conveying Peripheral Information with the InfoCanvas", *Proceedings of the ACM Advanced Visual Interfaces Conference (AVI 2002)*, pp. 43-50, May 2002.
(17 of 96 = 18% full papers accepted).

Zhao, Q. A. and Stasko, J., "Promoting Information and Community Awareness through Opportunistic Interfaces", (Short paper), *Proceedings of the ACM Advanced Visual Interfaces Conference (AVI 2002)*, pp. 69-74, May 2002.

Catrambone, R., Stasko, J. and Xiao, J., "Anthropomorphic agents as a user interface paradigm: Experimental findings and a framework for research", *Proceedings of the 24th Annual Conference of the Cognitive Science Society*, pp. 166-171, August 2002.

Newcomb, E., Pashley, T., and Stasko, J., "Mobile Computing in the Retail Arena", *Proceedings of the ACM SIGCHI Conference on Human Factors in Computing Systems (CHI '03)*, pp. 337-344, April 2003.
(75 of 470 = 16% full papers accepted)

Cadiz, J.J., Czerwinski, M., McCrickard, D.S. and Stasko, J., "Providing Elegant Peripheral Awareness," (Workshop Summary), *Proceedings of the 2003 CHI Extended Abstracts*, pp. 1066-1067, April 2003.

Calvert, K., Eagan, J., Namjoshi, A., Merugu, S., Stasko, J., Zegura, E. "Extending and Enhancing GT-ITM", *Proceedings of the SIGCOMM 2003 Workshop on Modeling, Methods and Tools for Reproducible Network Research (MoMeTools)*, August 2003.

Xiao, J., Catrambone, R., and Stasko J., "Be Quiet? Evaluating Proactive and Reactive User Interface Assistants", *Proceedings of INTERACT '03*, pp. 383-390, September 2003.
(82 of 241 = 34% papers accepted)

Fithian, R., Iachello, G., Moghazy, J., Pousman, Z. and Stasko, J., "The design and evaluation of a mobile location-aware handheld event planner", *Proceedings of Mobile HCI '03*, pp. 145-160, September 2003.
(21 of 63 = 33% papers accepted)

Csallner, C., Handte, M., Lehmann, O., and Stasko J., "FundExplorer: Supporting the Diversification of Mutual Fund Portfolios Using Context Treemaps", *Proceedings of IEEE Information Visualization 2003*, pp. 203-208, October 2003.
(29 of 90 = 32% papers accepted)

Hutchings, D. and Stasko, J., "Revisiting Display Space Management: Understanding Current Practice to Inform Next-generation Design", *Proceedings of Graphics Interface '04*, pp. 127-134, May 2004.
(32 of 85 = 38% papers accepted)

Plaue, C., Miller, T., and Stasko, J., "Is a Picture Worth a Thousand Words? An Evaluation of Information Awareness Displays", *Proceedings of Graphics Interface 2004*, pp. 117-126, May 2004.
(32 of 85 = 38% papers accepted)

Hutchings, D. and Stasko, J., "Shrinking Window Operations for Expanding Desktop Space", (poster paper), *Proceedings of the ACM Advanced Visual Interfaces Conference (AVI 2004)*, pp. 350-353, May 2004.

Xiao, J., Stasko, J., and Catrambone, R., "An Empirical Study of the Effects of Agent Competence on User Performance and Perception", *Proceedings of Autonomous Agents and Multi-Agent Systems 2004 (AAMAS '04)*, pp. 178-185, July 2004.
(142 of 577 = 24% papers accepted)

Stasko, J., Miller, T., Pousman, Z., Plaue, C., and Ullah, O., "Personalized Peripheral Information Awareness through Information Art", *Proceedings of UbiComp 2004*, pp. 18-35, September 2004.
(26 of 144 = 18% papers accepted)

Amar, R. and Stasko, J., "A Knowledge Task-Based Framework for Design and Evaluation of Information Visualizations," *Proceedings of IEEE Information Visualization 2004*, pp. 143-149, October 2004. (Best Paper Award)
(27 of 89 = 30% papers accepted)

Hutchings, D. Stasko, J., and Czerwinski, M., "Distributed display environments," (Workshop Summary), *Proceedings of the 2005 CHI Extended Abstracts*, pp. 2117-2118, April 2005.

Hutchings, D. and Stasko, J., "mudibo: Multiple Dialog Boxes for Multiple Monitors," (Short paper), *Proceedings of the CHI 2005 Extended Abstracts*, pp. 1471-1474, April 2005.

Conti, G., Ahamad M., and Stasko, J., "Attacking Information Visualization System Usability: Overloading and Deceiving the Human," *Proceedings of the Symposium on Usable Privacy and Security (SOUPS '05)*, July 2005.

Abdullah, K., Lee, C., Conti, G., Copeland, J., and Stasko, J., "IDS Rainstorm: Visualizing IDS Alarms", *Proceedings of IEEE Visualization for Computer Security 2005 (VizSEC '05)*, pp. 1-10, October 2005.

Amar, R., Eagan, J. and Stasko, J., "Low-Level Components of Analytic Activity in Information Visualization", *Proceedings of IEEE Information Visualization 2005*, pp. 111-117, October 2005.

(31 of 114 = 27% papers accepted)

Pousman, Z. and Stasko, J., "A Taxonomy of Ambient Information Systems: Four Patterns of Design," *Proceedings of the ACM Advanced Visualization Interfaces Conference (AVI '06)*, pp. 67-74, May 2006.

(25% papers accepted)

Xiao, J., Stasko, J., and Catrambone, R., "The Role of Choice and Customization on Users' Interaction with Embodied Conversational Agents: Effects on Perception and Performance", *Proceedings of the ACM SIGCHI Conference on Human Factors in Computing Systems (CHI '07)*, pp. 1293-1302, April 2007.

(142 of 571 = 25% papers accepted)

Hutchings, D. and Stasko, J., "Consistency, Multiple Monitors, and Multiple Windows," (TechNote), *Proceedings of the ACM SIGCHI Conference on Human Factors in Computing Systems (CHI '07)*, pp. 211-214, April 2007.

Stasko, J., Doo, M., Dorn, B. and Plaue, C., "Explorations and Experiences with Ambient Information Systems," *Proceedings of the Workshop on the Issues of Designing and Evaluating Ambient Information Systems at Pervasive '07*, pp. 36-41, May 2007.

Pousman, Z. and Stasko, J., "Ambient Information Systems: Evaluation in Two Paradigms," *Proceedings of the Workshop on the Issues of Designing and Evaluating Ambient Information Systems at Pervasive '07*, pp. 25-29, May 2007.

Plaue, C. and Stasko, J., "Animation in a Peripheral Display: Distraction, Appeal, and Information Conveyance in Varying Display Configurations," *Proceedings of Graphics Interface '07*, pp. 135-142, May 2007.

Hutchings, D.R. and Stasko, J., "Quantifying the Performance Effect of Window Snipping in Multiple-monitor Environments," *Proceedings of Human-Computer Interaction – INTERACT 2007: 11th IFIP TC 13 International Conference*, Rio de Janeiro, Brazil, Proceedings, Part II pp. 461-474, September 2007.

(75 of 218 = 34% papers accepted)

Stasko, J., Görg, C., Liu, Z. and Singhal, K., "Jigsaw: Supporting Investigative Analysis through Interactive Visualization," *Proceedings of IEEE VAST 2007*, pp. 131-138, October 2007.

(24 of 57 = 42% papers accepted)

Elmqvist, N., Stasko, J. and Tsigas, P., "DataMeadow: A Visual Canvas for Analysis of Large-Scale Multivariate Data," *Proceedings of IEEE VAST 2007*, pp. 187-194, October 2007.

(24 of 57 = 42% papers accepted)

Kang, Y., Stasko, J., Luther, K., Xu, Y. and Ravi, A., "RevisiTour: Enriching the Tourism Experience with User-Generated Content," *Proceedings of the 15th International Conference on Information Technology and Travel & Tourism*, pp. 59-69, January 2008.

Yi, J.S., Kang, Y.-A., Stasko, J., and Jacko, J., "Understanding and Characterizing Insights: How Do People Gain Insights Using Information Visualization", *Proceedings of BELIV '08*, Florence, Italy, April 2008.

Eagan, J. and Stasko, J., "The Buzz: Supporting User Tailorability in Awareness Applications," *Proceedings of the ACM SIGCHI Conference on Human Factors in Computing Systems (CHI '08)*, pp. 1729-1738, April 2008.

(157 of 714 = 22% papers accepted)

Kang, Y-A. and Stasko, J., "Lightweight Task/Application Performance using Single versus Multiple Monitors: A Comparative Study", *Proceedings of the Graphics Interface 2008 Conference*, Windsor, Ontario, Canada, p. 17-24, May 2008.

(34 of 85 = 40% papers accepted)

Pousman, Z., Rouzati, H., and Stasko, J., "Imprint, a Community Visualization of Printer Data: Designing for Open-ended Engagement on Sustainability," *Proceedings of ACM Conference on Computer Supported Cooperative Work (CSCW '08)*, pp. 13-16, Nov. 2008.

(86 of 370 = 23% papers accepted)

Plaue, C. and Stasko, J. "Presence & placement: exploring the benefits of multiple shared displays on an intellectual sensemaking task," *Proceedings of the ACM 2009 International Conference on Supporting Group Work (GROUP '09)*, pp. 179-188, May 2009.

(40/110 = 36% papers accepted)

Plaue, C., Stasko, J., and Baloga, M. "The Conference Room as a Toolbox: Technological and Social Routines in Corporate Meeting Spaces," *Proceedings of the 4th International Conference on Communities and Technology*, pp. 95-104, June 2009.

(30/80=38% papers accepted)

Goel, A., Morse, E., Raja, A., Scholtz, J. and Stasko, J. "Introspective Self-Explanations for Report Generation in Intelligence Analysis," to appear in *Proceedings of the IJCAI-09 Workshop on Explanation-Aware Computing*, July 2009.

3. Conference Presentations without Proceedings

Stasko, J., "TANGO: A Framework and System for Algorithm Animation,"
Doctoral Consortium of the ACM SIGCHI 1989 Conference on Human Factors in
Computing Systems, April 1989.

Stasko, J. "Three-Dimensional Algorithm Animation," (Short papers program) ACM
SIGCHI 1992 Conference on Human Factors in Computing Systems, May 1992.

Stasko, J., "Software Understanding through Visualization," Basic Research
Symposium at the ACM SIGCHI 1992 Conference on Human Factors in Computing
Systems, May 1992.

Recker, M., Ram, A., Li, G. Shikano, T., and Stasko, J., "Multimedia Information
Access in Support of Knowledge Construction," Annual Meeting of the American
Educational Research Association, April 1995.

Eagan, J., Harrold, M.J, Jones, J. and Stasko, J., "Visualization for Fault
Localization", Dagstuhl Workshop on Software Visualization, Dagstuhl, Germany,
May 2001.

Stasko, J., "Musings on Treemaps," Workshop on Research with Treemaps, Univ. of
Maryland, HCIL Open House, May 2001.

Stasko, J., "Evaluating Information Visualizations: Issues and Opportunities," BELIV
'06: Beyond time and errors: novel evaluation methods for information visualization,
Workshop at ACM Advanced Visual Interfaces (AVI), 2006, May 2006.

4. Invited Panel Memberships

"Program Visualization"

Second International Conference on Computer Assisted Learning
May 1989, Dallas, TX

"Software for Experimental Discrete Math"

DIMACS Workshop on Computational Support for Discrete Math
March 1992, New Brunswick, NJ

"Program Visualization--Are You Drawing Useful Pictures?"

ACM/ONR Workshop on Parallel and Distributed Debugging
May 1993, San Diego, CA

"Software Visualization in the Year 2000"

Software Engineering/Knowledge Engineering 1995 Conference
June 1995, Rockville, MD

"Cognitive Principles in Multimedia"

ACM Multimedia '96 Conference

November 1996, Boston, MA

“Models and Areas for Computer Science Education Research”
ACM SIGCSE 2001 Conference
February 2001, Charlotte, NC

“Drowning in Data and Information”, Panel on HCI Research
Microsoft Research Faculty Summit
July 2001, Seattle, WA

“Which comes first, usability or utility?”
IEEE Visualization 2003 Conference
October 2003, Seattle, WA

“Visualization for Information Security”
IEEE Information Assurance 2005 Workshop
June 2005, West Point, NY

“How to Succeed at SV/VLHCC Research”,
IEEE VL/HCC Symposium
September 2006, Brighton, U.K.

“Data and Visual Analytics Research”
U.S. Dept. of Homeland Security Research Summit
March 2008, Washington D.C.

F. Other

1. Software

XTANGO algorithm animation system--XTANGO provides an animation methodology and library that are used by developers to build animations of computer algorithms and programs. These animations have been used in classrooms and labs to help explain how the algorithms work. Dr. Stasko developed the system, and he distributes it free, via anonymous ftp from here at Georgia Tech.

POLKA and SAMBA software visualization systems--POLKA is the follow-on system to XTANGO. It introduced a new animation model that is particularly well-suited to building animations of parallel and distributed programs. POLKA has been used to develop application-specific animations of particular programs and more general libraries of animations such as GThreads, a library for visualizing pthreads programs on the KSR machine. SAMBA is a special front-end for POLKA that allows students to easily construct their own algorithm animations. Dr. Stasko developed, implemented, and supports the system. It was put out for anonymous ftp in early 1993. A number of researchers throughout the world have used POLKA to build animations of their concurrent programs. SAMBA was used in a number of different computer science departments to help teach algorithms and data structures.

PVaniM program visualization system for PVM--PVaniM provides a set of animated graphical views that depict the execution of a PVM application. The views depict the message traffic between processes and the relative workload of each process. Animation is shown with respect to both physical and logical time, to better depict the potential concurrency of the application. PVaniM was developed with Ph.D. student Brad Topol. It was put out for anonymous ftp in February 1995.

Buzz peripheral awareness system – The Buzz provides awareness of local community activities and people and external information such as weather, traffic, stocks, etc. It acts as a screen-saver showing a sequence of images where each image is a collage of pictures and text taken from a web page. More information about the system can be found at <http://www.cc.gatech.edu/gvu/ii/buzz>. The system is being developed by advisee James Eagan.

InfoCanvas – The system is a kind of “information art.” That is, the InfoCanvas is an electronic picture where the objects in the picture represent information of interest to its owner. When the state of the information changes, the visual appearance or location of the corresponding object changes. The InfoCanvas is implemented through an LCD monitor put in a picture frame and hung on a wall. More information about the system can be found at <http://www.cc.gatech.edu/gvu/ii/infoart>.

Jigsaw – Jigsaw is a system for investigative analysis and sense-making on large document collections. The focus of the system is on unstructured text documents such as case reports and abstracts. Jigsaw presents the documents and the entities within the documents, and most importantly, connections between them, to help analysts “put the pieces together” and identify larger stories or plots. It has been used in law enforcement intelligence analysis to help fight crime. More information about the system can be found at <http://www.gvu.gatech.edu/ii/jigsaw>.

2. Published Papers

Professional Society Magazines

Stasko, J., "Animating Algorithms with XTANGO," *SIGACT News*, vol. 23, no. 2, pp. 67-71, Spring 1992.

Brown, M., Domingue, J., Price, B., and Stasko, J., "Software Visualization," *SIGCHI Bulletin*, vol. 26, no. 4, pp. 32-35, October 1994.

G. Research Proposals and Grants (Principal Investigator or Co-Principal Investigator)

Adapting Algorithm Animation Techniques for Program Debugging and Testing

National Science Foundation, Research Initiation Award

Funded: \$60,000 (9/91-8/93)

Applying Program Visualization Techniques to Aid Parallel and Distributed Program Development

Joint proposal with W. Appelbe (PI)

National Science Foundation

Funded: \$215,904 (7/92-6/95)

GVU Industrial Partners Program, Principal Technical Liaison

Mitsubishi Research Labs

Funded: \$30,000 (1/93-1/94)

Toward On-Line Program Steering: Tools for Monitoring, Display, Animation, and Visualization of Parallel Applications

Joint proposal with J. Foley, K. Schwan, M. Ribarsky

Kendall Square Research

Funded: \$18,000, (4/93-3/94)

Integrating Multiple Types of Courseware in Exploratory Educational Environments

Joint proposal with A. Ram, G. Li, M. Recker, A. Badre

SUCCEED/Curriculum 21

Funded: \$24,804, (1/94-6/95)

Matching funds: \$28,912 (EduTech)

Multimedia Support for Introductory and Advanced Computer Science Education

Joint proposal with J. Foley (PI) and M. Guzdial

National Science Foundation, Educational Infrastructure Program

Funded: \$232,835, (9/94-12/97)

Matching funds: \$78,000 (EduTech)

Using Cognitive Principles to Design Multimedia Training Environments to Support Learning

Joint proposal with R. Catrambone, M. Guzdial, and A. Ram

Office of Naval Research

Funded: \$382,046 (6/95-5/98)

GVU Industrial Partner Program, Principal Technical Liaison

Sun Microsystems

Funded: \$30,000 (9/95-8/96)

Fostering Object-Oriented Program Development and Maintenance through Visualization and Animation

National Science Foundation

Funded: \$116,579 (9/96-8/99)

Collaborative Research in Internet Topology Models: A Foundation for Large-Scale Simulators

Joint proposal with E. Zegura (PI) and K. Calvert

NSF ITR

Funded: \$385,363 (9/00-8/03)

GVU Industrial Partner Program, Principal Technical Liaison

NCR Corporation

Funded: \$40,000 (6/01-5/02)

Fostering Peripheral Information Awareness through Personalized, Expressive Art
National Science Foundation - HCI

Funded: \$422,930 (9/01-8/04)

Gamma: Improving the Quality of the Next Generation of Software Systems using
Software Tomography

Joint proposal with M. J. Harrold (PI), R. Lipton, A. Orso

National Science Foundation ITR Program

Funded: \$400,000 (9/02-8/06)

Expanding the Desktop: Transforming Desktop Computing through Large-Pixel Space
Displays

National Science Foundation – HCI

Amount funded: \$483,688 (3/05-2/08)

Establishment of the Southeast Regional Visualization and Analytics Center

Joint proposal with UNC-Charlotte, W. Ribarsky (PI)

GT PI: Stasko. GT co-PIs: J. Foley, A. Goel, R. Grinter

Amount funded: \$900,901 (1/06-6/09)

\$60,000 GT and CoC matching (1/06-3/07)

Research Gift

TravelPort Corp.

Amount funded: \$7000 (6/08)

FODAVA-Lead: Dimension Reduction and Data Reduction: Foundations for
Visualization

Joint proposal with H. Park (PI), A. Gray, V. Koltchinskii, R. Monteiro

National Science Foundation & Dept. of Homeland Security

Amount funded: \$3,000,000 (9/08-8/13)

VACCINE Center of Excellence in Command, Control, and Interoperability

Joint proposal with D. Ebert (Lead), Purdue University, and others

GT PI: Stasko. GT Co-PIs: J. Foley, A. Goel

Dept. of Homeland Security

Amount funded: \$15,000,000 (7/09-6/15)

H. Research Grants and Proposals (Contributor)

Multimedia Software

Advisor of student Keith Edwards, grant recipient

Sun Microsystems

Funded: \$41,727 (7/92-6/94)

An Environment for Educational Delivery and Development for Computing

M. McCracken, P. Freeman, J. Foley, (co-PIs)
A. Badre, S. Hudson, D. Lawton, R. Shackleford, J. Stasko (faculty contributors)
National Science Foundation Educational Infrastructure Program
Funded: \$200,000 (9/92-8/94)
Professors Stasko and Hudson were major contributors to the technical document of the proposal, and they were primary contributors to the technical development within the project.

NSF Graduate Traineeship Program, Human-Computer Interaction
Faculty participant (GVU Center Award)
Funded: \$530,000 (9/94-8/99)

InSpace
Research collaboration with Steelcase Corporation
E. Mynatt (PI)
K. Edwards, I. Essa, R. Grinter, J. Stasko (faculty contributors)
Funded: (8/05-9/06)

I. Research Honors and Awards

1995 College of Computing Junior Faculty Research Award
1999 Edenfield Faculty Fellowship Award
2001 Raytheon Faculty Fellowship Award (with L. Liu)
Brian Shackel Best Paper Award, INTERACT 2001 Conference
Best Paper Award, IEEE Information Visualization 2004 Symposium
Winner, University Division, IEEE VAST 2007 Contest

III. SERVICE

A. Professional Activities

1. Memberships and Activities in Professional Societies
 - Member, Phi Beta Kappa Honor Society, 1982-present
 - Member, IEEE Computer Society, 1986-present
 - Member, Association for Computing Machinery, 1986-present
 - Member, ACM Special Interest Group on Computer-Human Interaction, 1989-present
 - Member, ACM Special Interest Group on Computer Science Education, 1997-present

2. Editorial Activities
 - Associate Editor, *Journal of Visual Languages and Computing*, 1994-present
 - Editorial board, *World Wide Web: Internet and Web Information Systems*, 1997-2008
 - Associate Editor, *Information Visualization*, 2001-present
 - Associate Editor, *International Journal of Human-Computer Studies*, 2004-2009
 - Editorial Board, *IEEE Transactions on Visualization and Computer Graphic*, 2004-2008
 - Editorial Board, *ACM Transactions on Computer-Human Interaction*, 2006-present

3. Conference Organizational Activities
 - Workshop Co-Chair, “Software Visualization” at the CHI '94 Conference
 - This was the first such international meeting within this area.
 - Special Events Chair, 1996 IEEE International Symposium on Visual Languages
 - Program Co-Chair, 2000 IEEE International Symposium on Visual Languages
 - Workshop Co-Chair, “Software Visualization” at ICSE 2001 Conference
 - Workshop Co-Chair, Dagstuhl (Germany) seminar on Software Visualization, May 2001
 - Workshop Co-Chair, “Providing Elegant Peripheral Awareness” at CHI '03 Conference
 - Program Chair, 2003 ACM Symposium on Software Visualization
 - Publicity Chair, IEEE Information Visualization 2003
 - Posters Co-Chair, IEEE Information Visualization 2004
 - Papers Co-Chair, IEEE Information Visualization 2005
 - Papers Co-Chair, IEEE Information Visualization 2006
 - Steering Committee, IEEE Symposium on Information Visualization, 2006-present
 - Workshop Co-Chair, Dagstuhl (Germany) seminar on Information Visualization, May 2007
 - General Chair, IEEE Information Visualization 2007
 - Papers Co-Chair, IEEE Visual Analytics Science & Technology (VAST) 2009

4. Conference Committee Activities
 - Program Committee, 1993 Vienna Conference on Human-Computer Interaction
 - Program Committee, 1993 IEEE International Symposium on Visual Languages
 - Program Committee, 1994 IEEE International Symposium on Visual Languages
 - Program Committee, IFIP 2.6 Working Conference on Visual Database Systems
 - Program Committee, 1995 IEEE International Symposium on Visual Languages
 - Program Committee, 1996 IEEE International Symposium on Visual Languages

Program Committee, 3rd Intl Conference on Knowledge Discovery and Data Mining
Program Committee, 1997 IEEE International Symposium on Visual Languages
Program Committee, 1998 IEEE International Symposium on Visual Languages
Program Committee, 1999 IEEE International Symposium on Visual Languages
Program Committee, IEEE Information Visualization 2000
Program Committee, WebVis 2000
Program Committee, New Paradigms in Information Visualization 2000
Doctoral Consortium Committee Member, ACM SIGCSE 2001 Conference
Program Committee, 2001 Symposium on End-User Programming
Program Committee, IEEE Information Visualization 2001
Program Committee, IEEE Information Visualization 2002
Program Committee, Visualising Software for Understanding and Analysis Workshop
Program Committee, 2nd ACM International Workshop on Mobile Commerce 2002
Program Committee, 2002 Symposium on Empirical Studies of Programmers
Program Committee, 2003 IEEE Symposium on Visual/Multimedia Software
Engineering
Program Committee, IEEE Information Visualization 2003
Program Committee, UbiComp 2003 Demos Program
Program Committee, 2004 IEEE International Symposium on Visual Languages
Program Committee, IEEE Information Visualization 2004
Program Committee, 2005 ACM Symposium on Software Visualization
Associate Chair, 2006 ACM Conf. on Human Factors in Computing Systems (CHI)
Program Committee, 2006 ACM Symposium on Advanced Visual Interfaces
Program Committee, 2006 IEEE Information Assurance Workshop
Program Committee, 2006 ACM Symposium on Software Visualization
Program Committee, 2006 IEEE Visualization for Computer Security (VizSec)
Program Committee, Workshop on the Issues of Designing and Evaluating Ambient
Information Systems, at Pervasive '07
Associate Chair, 2007 ACM Conf. on Human Factors in Computing Systems (CHI)
Program Committee, 2008 Beyond time and errors: novel evaluation methods for
Information Visualization Workshop (BELIV), at CHI 2008
Program Committee, 2008 ACM Symposium on Advanced Visual Interfaces
Program Committee, 2008 IEEE Information Visualization Conference
Program Committee, Workshop on the Issues of Designing and Evaluating Ambient
Information Systems, at UbiComp '08
Program Committee, 2009 AAAI Spring Symposium on Technosocial Predictive
Analytics
Program Committee, 2009 IEEE Information Visualization Conference

5. Reviewing Activities

Past reviewer for

National Science Foundation (reviewer, multiple panel member, site reviewer)

Canadian Research Council

IEEE Transactions on Education

Software--Practice and Experience

IEEE Computer

SIGGRAPH Conference
Journal of Parallel and Distributed Computing
Symposium on Parallel and Distributed Tools
International Parallel Processing Symposium
Graphics Interface Conference
SuperComputing Conference
CHI Conference
UIST Conference
Computers & Education
Concurrency
Australian Computer Journal
International Journal of Human-Computer Studies
Communications of the ACM
IEEE Symposium on Visual Languages
Journal of Visual Languages and Computing
Information Visualization Conference
IEEE Transactions on Software Engineering
IEEE Transaction on Systems, Man and Cybernetics
ACM Transactions on Computer-Human Interaction
Computer Graphics & Applications
IEEE Multimedia
Journal of Intelligent Information Systems
Interacting with Computers
IEEE Transactions on Visualization and Computer Graphics
Information and Software Technology
Information Visualization
ACM Transition on Graphics
ACM Transactions on Programming Languages and Systems
Eurographics – IEEE TVCG Symposium on Visualization
IBM Systems Journal
International Journal of Human-Computer Interaction
Pervasive Conference
EuroVis Conference
NICTA (Australia)
INRIA

B. On-Campus Committees

School of Information and Computer Science Course Planning and Scheduling Committee, 1989-1990.
College of Computing PhD Admissions Committee, 1990-1991.
College of Computing Space Planning Committee, 1991-1992.
College of Computing Faculty Hiring Committee, 1991-1992.
College of Computing PhD Admissions Committee, 1992-1993.
College of Computing Undergraduate Curriculum Revision Committee, 1992-1993.
College of Computing Graduate Committee, 1993-1994.
GIT EduTech Director Search Committee, 1993-1994.

College of Computing, Dean's Advisory Committee, 1994-1995.
 College of Computing Graduate Committee, 1994-1998.
 GIT President Clough's Inauguration Committee, 1994-1995.
 GVV Director's Search Committee, 1995-1996.
 GIT Faculty and Staff Benefits Committee, 1996-1997.
 College of Computing, Faculty Hiring Committee, 1999-2000.
 College of Computing, Undergraduate Curriculum Committee, 2001-2002.
 College of Computing, Web Design Committee, 2001-2002
 College of Computing, Graduate Committee, 2001-2002
 GIT Committee on Electronic Theses and Dissertations, 2002
 College of Computing, PhD Admissions Committee, 2000-2003
 College of Computing, Structural Change Committee, 2003
 GIT Undergraduate Curriculum Committee, 2002-2007
 College of Computing, Graduate Committee 2003-2005
 College of Computing, Faculty Computing Committee (Chair) 2008-2009

C. Internal Ph.D. Thesis Committees

Carol Kilpatrick	February 1991	Advisor: Karsten Schwan
"Capture and Display of Performance Information for Parallel and Distributed Applications"		
Erika Rogers	November 1992	Advisor: Ronald Arkin
"Visual Interaction: A Link Between Perception and Problem-Solving"		
Jeanette Allen	March 1993	Advisor: Albert Badre
"Effects of Representation on Programming Behavior"		
Andrea Lawrence	August 1993	Advisor: Albert Badre
"Empirical Studies of the Value of Algorithm Animation in Algorithm Understanding"		
L. Gunaseelan	February 1994	Advisor: Richard LeBlanc
"Debugging Distributed Systems"		
Weiming Gu	June 1995	Advisor: Karsten Schwan
"Dynamic Monitoring and On-line Steering of Parallel and Distributed Applications"		
Paulo Santos	December 1995	Advisor: Albert Badre
"Automatic Detection of User Transitionality by Analysis of Interaction"		
Sougata Mukherjea	December 1995	Advisor: James Foley
"Visualizing the Information Space of Hypermedia Systems"		
Krishna Bharat	June 1996	Advisor: Scott Hudson
"Supporting the Construction of Distributed Interoperable User Interface Applications"		
Erica Sadun	June 1996	Advisor: James Foley

"A Framework for Developing Dynamic Applications"

Douglas Mackenzie November 1996 Advisor: Ron Arkin
"A Design Methodology for the Configuration of Behavior-Based Mobile Robots"

G. Drew Kessler June 1997 Advisor: Larry Hodges
"A Flexible Framework for the Development of Multi-user Virtual Environment Applications"

Jeff Vetter March 1998 Advisor: Karsten Schwan
"Techniques and Optimizations for High Performance Computational Steering"

Greg Eisenhauer June 1998 Advisor: Karsten Schwan
"An Object Infrastructure for High-Performance Interactive Applications"

Ian Smith June 1998 Advisor: Scott Hudson
"Support for Multi-Viewed Interfaces"

Noel Rappin December 1998 Advisor: Mark Guzdial
"A Framework for Teaching Learners to Model by Focusing Complexity of Modeling and Simulation Tools"

Gary Boone August 2000 Advisor: Chris Atkeson
"Extreme Dimensionality Reduction for Text Learning: Cluster-generated Feature Spaces"

Jason Brotherton December 2001 Advisor: Gregory Abowd
"Enriching Everyday Activities through the Automated Capture and Access of Live Experiences"

Margaret Francel May 2002 Advisor: Spencer Rugaber
"Fault Location through Execution Traces"

Gregory Conti May 2006 Advisor: Mustaque Ahamad
"Countering Denial of Information Attacks through Information Visualization"

Cindy Robertson November 2007 Advisor: Blair MacIntyre
"Using Graphical Context to Reduce the Effects of Registration Error in Augmented Reality"

Sung Park (Psychology) August 2009 Advisor: Richard Catrambone
"Social Responses to Virtual Humans: The Effect of Human-Like Characteristics"

Edward Clarkson August 2009 Advisor: Jim Foley
"Visual Search Interfaces for Online Digital Repositories"
(Thesis proposal)

Mario Romero August 2009 Advisor: Gregory Abowd

“Supporting Human Interpretation and Analysis of Activity Captured through Overhead Video”

Nicholas Diakopoulos August 2009 Advisor: Irfan Essa
“Collaborative Annotation, Analysis, and Presentation Interfaces for Digital Video”

Na Wen (Management) May 2009 Advisor: Nicholas Lurie
“Essays on Consumer Decision-Making in Interactive and Information Rich Environments”
(Thesis proposal)

D. External Ph.D. Thesis Committees

Bruce Thomas "Animating Direct Manipulation in Human Computer Interfaces"
Dept. of Computer Science, Flinders University of South Australia
Advisor: Prof. Paul Calder
December 1997

Duane Jarc “Assessing the Benefits of Interactivity and the Influence of Learning Strategies on the Effectiveness of Algorithm Animation using Web-based Data Structures Courseware”
Dept. of Computer Science, The George Washington University
Advisor: Prof. Michael Feldman
May 1999

Christopher Hundhausen
“Toward Effective Algorithm Visualization Artifacts: Designing for Participation and Communication in an Undergraduate Algorithms Course”
Dept. of Computer Science, University of Oregon
Advisor: Prof. Sarah Douglas
May 1999

Lynn Bartram
“Enhancing Information Visualization with Motion”
Dept. of Computer Science, Simon Fraser University
Advisor: Prof. Tom Calvert
June 2001

Carsten Friedrich
“Graph Clustering”
School of Information Technologies, University of Sydney
Advisor: Peter Eades
January 2007

Xiaobin Shen
“Intrusive and Non-Intrusive Evaluation of Ambient Displays”

School of Information Technologies, University of Sydney
Advisor: Peter Eades
January 2007

Heidi Lam

“Visual exploratory analysis of large data sets: evaluation and application”
Dept. of Computer Science, University of British Columbia
Advisor: Tamara Munzner
May 2008

A. Johannes Pretorius

“Visualization of State Transition Graphs”
Dept. of Computer Science, Technische Universitat Eindhoven
Advisor: Jarke van Wijk
November 2008

E. Honors and Awards

Dean’s Award, College of Computing, Georgia Tech, 1997
Dean’s Award. College of Computing, Georgia Tech, 2003

IV. NATIONAL & INTERNATIONAL PROFESSIONAL RECOGNITION

A. Invited Lectures

- University of Rhode Island, Kingston, RI, Sept. 1986.
“Implementation of Priority Queues via Pairing Heaps”
Vanderbilt University, Nashville, TN, March 1989.
University of Tennessee, Knoxville, TN, March 1989.
University of Virginia, Charlottesville, VA, March 1989.
University of California at Berkeley, Berkeley, CA, March 1989.
Rice University, Houston, TX, April 1989.
University of Arizona, Tucson, AZ, April 1989.
Georgia Institute of Technology, Atlanta, GA, April 1989.
“TANGO: A Framework and System for Algorithm Animation”
GTE Labs, Waltham, MA, April 1989
“TANGO: A Framework and System for Algorithm Animation”
IBM T.J. Watson Research Center, Yorktown Heights, NY, June 1989.
“TANGO: A Framework and System for Algorithm Animation”
George Washington University, Washington, D.C., Sept. 1990.
“Adding Animation to Software Development Environments”
University of Indiana, Bloomington, IN, Nov. 1990.
“Adding Animation to Software Development Environments”
Texas A&M University, College Station, TX, Nov. 1991.
“New Developments in Software Visualization and Animation”
M.I.T., Boston, MA, Jan. 1992.
“New Developments in Software Visualization and Animation”
Dartmouth College, Hanover, NH, Jan. 1992.
“New Developments in Software Visualization and Animation”
DIMACS Workshop on Computational Support for Discrete Math, March 1992.
New Brunswick NJ.
“New Developments in Software Visualization and Animation”
Simon Fraser University, Vancouver, B.C., Canada, Sept. 1992.
“Techniques for Visualizing and Animating Computer Programs and Algorithms”
The Open University, Milton Keynes, England, May 1993.
“Expanding Algorithm Animation: Applications to Debugging and Parallel Programming”
Clark-Atlanta University, Atlanta, GA, Oct. 1993.
“Algorithm Animation”
National Academy of Science Symposium on Statistical Methods in Software Engineering, Washington, D.C., Oct. 1993.(Invited national expert).
“Software Visualization”
University of Arizona, Tucson, AZ, Oct. 1995.
“Software Visualization for Program Understanding”
National Science Foundation Workshop on Computing Technology for Education, Durham, N.C., April 1996.
“Using Student-Built Algorithm Animations as a Learning Aid”
Duke University, Durham, N.C., April 1996.
“Visualizing the Execution and Performance of Parallel Programs”

Oregon State University, Corvallis, OR, May 1996.
“Using Student-Built Algorithm Animations as a Learning Aid”
Oregon Graduate Center, Portland, OR, May 1996.
“Using Software Visualization to Analyze and Understand Programs”
Bucknell University, Lewisburg, PA, September 1996.
“Using Student-Built Algorithm Animations as a Learning Aid”
University of Maryland, College Park, MD, February 1999.
“Teaching Algorithms using Animations: A View from the Trenches”
University of Victoria, Victoria, B.C., Canada, April 2001
“Information Interfaces”
University of Hawaii, Honolulu, HI, March 2003
“Techniques for Providing Opportunistic, Elegant, and Peripheral Awareness of Information”
Carnegie-Mellon University, HCII, Pittsburgh, PA, March 2003
“Exploring Techniques for Efficient, Enjoyable Information Access”
Pacific Northwest National Labs, August 2004
“Information Interfaces: Blending Information Visualization and Human-Computer Interaction”
Workshop on Integrating Algorithm Visualization into Computer Science Courses
Grand Valley State Univ., Grand Rapids, MI, August 2005
“Algorithm Visualization: Reflections and Future Directions”
IBM Hawthorne Research Labs, February 2006
“Information Interfaces: Blending Information Visualization and Human-Computer Interaction”
Microsoft Research, March 2006
“Information Interfaces: Blending Information Visualization and Human-Computer Interaction”
Workshop on Integrating Algorithm Visualization into Computer Science Courses
Grand Valley State Univ., Grand Rapids, MI, June 2006
“Algorithm Visualization: Reflections and Future Directions”
Clemson University, Clemson, SC, June 2007
“Visualization for Information Awareness and Analysis”
University of Washington, Seattle, WA, October 2007
“Visualization for Information Awareness and Analysis”
Visual Analytics: Science & Application Workshop, Vancouver, B.C., February 2008
“Visualization for Investigative Analysis: Putting the Pieces Together”
University of Illinois, Urbana-Champaign, IL, February 2008
“Visualization for Information Analysis and Exploration”
Human-Computer Interaction and Visualization Workshop, Kaiserslauten, Germany, April 2008
“Why We All Should Have Multiple Monitors”
Griffith University, Brisbane Australia, June 2008
“Visual Analytics and Jigsaw”
Defense Sciences Technology Organization, Adelaide, Australia, June 2008
“Visualization for Investigative Analysis: Putting the Pieces Together with Jigsaw”
Technische Univ. Eindhoven, Eindhoven, Netherlands, November 2008
“Visualization for Information Analysis and Exploration”

Defense Intelligence Agency, Washington D.C., April 2009
“Visualization for Information Analysis and Exploration”