

**JOHN T. STASKO**  
**Regents Professor**  
**School of Interactive Computing**  
**Georgia Institute of Technology**  
**Atlanta, GA 30332-0760**  
**stasko@cc.gatech.edu**  
**<https://faculty.cc.gatech.edu/~stasko>**

**EDUCATIONAL BACKGROUND**

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

**EMPLOYMENT HISTORY**

Regents Professor	School of Interactive Computing Georgia Institute of Technology	2018-present
Professor	School of Interactive Computing Georgia Institute of Technology	2007-present
Professor	College of Computing Georgia Institute of Technology	2004-present
Associate Professor	College of Computing Georgia Institute of Technology	1995-2004
Assistant Professor	College of Computing Georgia Institute of Technology	1989-1995
<b>Appointments held:</b>		
Interim Chair	School of Interactive Computing Georgia Institute of Technology	2021-present
Honorary Professor	School of Computer Science Univ. of St. Andrews, Scotland	2013
Associate Chair	School of Interactive Computing Georgia Institute of Technology	2007-2014
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      1995-1999  
   Georgia Institute of Technology

Associate Director for Research Computing, GVU Center      1994-1996  
   Georgia Institute of Technology

### **CURRENT FIELDS OF INTEREST**

Information Visualization, Visual Analytics, Human-computer Interaction, Data Analysis

Dr. Stasko directs the Information Interfaces Research Group whose focus is to help people and organizations use data to solve problems. One main theme of the group's research is the study of information visualization and visual analytics systems for exploring, analyzing, and understanding large data sets and document collections. Their work includes the design, creation, application, analysis, and evaluation of such techniques and systems.

## 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 CS 8903	Human-Computer Interaction Research in InfoVis	35 8
Fall 2008	CS 1331	Introduction to Object-Oriented Programming	160
Spring 2009	CS 4460 CS 7450	Intro to Information Visualization Information Visualization	17 40
Fall 2009	CS 1331	Introduction to Object-Oriented Programming	175
Spring 2010	CS 4460 CS 7450	Intro to Information Visualization Information Visualization	21 34
Fall 2010	CS 1331	Introduction to Object-Oriented Programming	215
Spring 2011	CS/IE 4801	Sports Analytics joint with Rahul Basole	25
Spring 2011	CS 7450	Information Visualization	45
Fall 2011	CS 1331	Introduction to Object-Oriented Programming	130
Fall 2011	CS 7450	Information Visualization	35
Spring 2012	CS/IE 4801	Sports Analytics joint with Rahul Basole	75
Fall 2012	CS 1331	Introduction to Object-Oriented Programming	164
Fall 2012	CS 7450	Information Visualization	48
Fall 2013	CS 7450	Information Visualization	49
Spring 2014	CS 1331	Introduction to Object-Oriented Programming	179
Fall 2014	CS 4460	Intro. to Information Visualization	28
Spring 2015	CS 1331	Introduction to Object-Oriented Programming	190
Fall 2015	CS 7450	Information Visualization	65

Spring 2016	CS 1331	Introduction to Object-Oriented Programming	203
Spring 2016	CS 8001 VDE	Visualization Design Seminar	17
Fall 2016	CS 6452	Prototyping Interactive Systems	16
Fall 2016	CS 7450	Information Visualization	61
Spring 2017	CS 1331	Introduction to Object-Oriented Programming	233
Fall 2017	CS 4460	Intro. to Information Visualization	104
Spring 2018	CS 1331	Introduction to Object-Oriented Programming	178
Fall 2018	CS 7450	Information Visualization	79
Spring 2019	CS 1331	Introduction to Object-Oriented Programming	191
Fall 2019	CS 7450	Information Visualization	64
Spring 2020	CS 1331	Introduction to Object-Oriented Programming	300

## **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 in '05-'06)  
July 2005 – Aug. 2010

### 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 & Former Director, School of Computing, Clemson University

NSF Career Award winner

W. Keith Edwards

Graduation: Fall 1995

"Meta-Information Sharing in Collaborative Support Environments"

Professor & GVU Center Director, Georgia Institute of Technology

Dean Jerding

Graduation: Fall 1997

"Visualizing Patterns of Interaction in Program Executions"

Vice President, Cognizant Softvision

Brad Topol (co-advisor with Mustaque Ahamad)

Graduation: Spring 1998

"A Framework for the Development of Wide Area Applications"

Distinguished Engineer, 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"

Senior Software Engineer, Google

Dugald Hutchings

Graduation: Summer 2006

"Making Multiple Monitors More Manageable"

Professor & Dept. Chair, Elon University

Jun Xiao

Graduation: Fall 2006

"Empirical Studies on Embodied Conversational Agents"

CEO and Founder, Immune Arch

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"

Vice President, Samsung

James Eagan

Graduation: Fall 2008

“The Buzz: Supporting Extensively Customizable Information Awareness Applications”  
Associate Professor, Telecom-ParisTech (France)

Christopher Plaue  
Graduation: Summer 2009  
“Exploring and Visualizing the Impact of Multiple Shared Displays on Collocated Meeting Practices”  
Senior Lecturer and Undergraduate Coordinator, Clemson Univ.

Zhicheng Liu  
Graduation: Spring 2012  
“Network-based Visual Analysis of Tabular Data”  
Assistant Professor, Univ. of Maryland

Youn-ah Kang  
Graduation: Summer 2012  
“Informing Design of Visual Analytics Systems for Intelligence Analysis: Understanding Users, User Tasks, and Tool Usage”  
Associate Professor, Yonsei University (Korea)

Charles D. Stolper (co-advisor with Polo Chau)  
Graduation: Summer 2016  
“Graph-Level Operations: A High-Level Interface for Graph Visualization Technique Specification”  
Software Engineer, Google

Yi Han (co-advisor with Gregory Abowd)  
Graduation: Fall 2016  
“Understanding Visual Analysis Process from User Interactions Using Visual Analytics”  
Assistant Professor, National Sun Yat-sen University (Taiwan)

Ramik Sadana  
Graduation: Spring 2017  
“Data Visualization on Tablet Devices”  
Senior Engineer, Uber

Mengdie Hu  
Graduation: Spring 2018  
“Sketching mental maps of urban spaces for the visual analysis of spatial data”  
Research Scientist, Facebook

J. Alex Godwin  
Graduation: Summer 2018  
“Visualization of textual content from social media and online communities”



Assistant Professor, American University

Arjun Srinivasan

Graduation: Summer 2020

“Combining Natural Language and Direct Manipulation for Human-Data Interaction through Visualizations”

Research Scientist, Tableau Research

John Thompson

Graduation: Fall 2020

“Augmenting Graphic Design Practices for Expressive Visualization Authoring”

Post-doc, Microsoft Research

Po-Ming “Terrance” Law (co-advisor with Alex Endert)

Graduation: Spring 2021

“Exploring User Perception of Causality in Automated Data Insights”

Research Scientist, Epsilon

3. Current Ph. D. students

Hayeong Song, 4th year

Yu Fu, 2nd year

4. M.S. Thesis Students supervised.

Joseph Wehrli

August 1993

"Mapping Massively Parallel Computations to Animations to Support Debugging"

Xiaoxue Zhang (Digital Media)

May 2017

“Health Inequity in Atlanta”

**C. Teaching Awards**

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

William A. Gus Baird Teaching Award, College of Computing, Georgia Tech, 2020

## 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 (Current Google Scholar h-index: 65)

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)

Liu, Z., Stasko, J. and Sullivan, T., "SellTrend: Inter-Attribute Visual Analysis of Temporal Transaction Data", *IEEE Transactions on Visualization and Computer Graphics*, (Paper presented at InfoVis '09), Vol. 15, No. 6, pp. 1025-1032, November/December 2009. (Honorable Mention, Best Paper Award)

(37 of 141 = 26% papers accepted)

Pike, W., Stasko, J., Chang, R. and O'Connell, T., "The Science of Interaction," *Information Visualization*, Vol. 8, No. 4, pp. 263-274, Winter 2009.

Liu, Z. and Stasko, J., "Mental Models, Visual Reasoning and Interaction in Information Visualization: A Top-down Perspective", *IEEE Transactions on Visualization and Computer Graphics*, (Paper presented at InfoVis '10), Vol. 16, No. 6, November/December 2010, pp. 999-1008.

(35 of 135 = 26% papers accepted)

Kang, Y., Görg, C., and Stasko, J., “How Can Visual Analytics Assist Investigative Analysis? Design Implications from an Evaluation,” *IEEE Transactions on Visualization and Computer Graphics*, Vol. 17, No. 5, May 2011, pp. 570-583.

Wong, P.C., Chen, C., Görg, C., Shneiderman, B., Stasko, J., and Thomas, J., “Graph Analytics - Lessons Learned and Challenges Ahead,” *IEEE Computer Graphics and Applications*, Vol. 31, No. 5, Sept./Oct. 2011, pp. 18-29.

Liiv, I., Opik, R., Ubi, J., and Stasko, J. “Visual matrix explorer for collaborative seriation,” *Wiley Interdisciplinary Reviews: Computational Statistics*, Vol. 4, No. 1, Jan./Feb. 2012, pp. 85-97.

Basole, R., Hu, M., Patel, P. and Stasko, J.T., “Visual Analytics for Converging-Business-Ecosystem Intelligence”, *IEEE Computer Graphics and Applications*, Vol. 32, No. 1, Jan./Feb. 2012, pp. 92-96.

Lee, H., Kihm, J., Choo, J., Stasko, J.T., Park, H., “iVisClustering: An Interactive Visual Document Clustering via Topic Modeling”, *Computer Graphics Forum*, (Paper presented at EuroVis '12) Vol. 31, No. 3, June 2012, pp. 1155-1164.  
(55 of 202 = 27% papers accepted)

Kang Y. and Stasko, J., “Examining the Use of a Visual Analytics System for Sensemaking Tasks: Case Studies with Domain Experts”, *IEEE Transactions on Visualization and Computer Graphics*, (Paper presented at VAST '12), Vol. 18, No. 12, December 2012, pp. 2869-2878.  
(29 of 104 = 28% papers accepted)

Pileggi, H., Stolper, C.D., Boyle, J.M., and Stasko, J.T., “SnapShot: Visualization to Propel Ice Hockey Analytics”, *IEEE Transactions on Visualization and Computer Graphics*, (Paper presented at InfoVis '12), Vol. 18, No. 12, December 2012, pp. 2819-2828.  
(44 of 178 = 25% papers accepted)

Görg, C., Kang, Y., Liu, Z., and Stasko, J., “Visual Analytics Support for Intelligence Analysis”, *IEEE Computer*, Vol. 46, No. 7, July 2013, pp. 30-38.

Görg, C., Liu, Z., Kihm, J., Choo, J., Park, H., Stasko, J., “Combining Computational Analyses and Interactive Visualization for Document Exploration and Sensemaking in Jigsaw”, *IEEE Transactions on Visualization and Computer Graphics*, Vol. 19, No. 10, October 2013, pp. 1646-1663.

Basole, R.C., Clear, T., Hu, M., Mehrotra, H., and Stasko, J., “Understanding Interfirm Relationships in Business Ecosystems with Interactive Visualization”, *IEEE Transactions on Visualization and Computer Graphics*, (Paper presented at InfoVis '13), Vol. 19, No. 12, December 2013, pp. 2526-2535.  
(38 of 151 = 25% papers accepted)

Liu, Z., Navathe, S., and Stasko, J., “Ploceus: Modeling, Visualizing and Analyzing Tabular Data as Networks,” *Information Visualization*, Vol. 13, No. 1, January 2014, pp. 59-89.

Kang, Y. and Stasko, J., “Characterizing the intelligence analysis process through a longitudinal field study: Implications for visual analytics”, *Information Visualization*, Vol. 13, No. 2, April. 2014, pp. 134-158.

Görg, C., Liu, Z., and Stasko, J., “Reflections on the Evolution of the Jigsaw Visual Analytics System,” *Information Visualization*, Vol. 13, No. 4, October 2014, pp. 336-345.

Sadana, R., Major, T., Dove, A., and Stasko, J., “OnSet: A visualization technique for large-scale binary set data”, *IEEE Transactions on Visualization and Computer Graphics*, (Paper presented at InfoVis '14), Vol. 20, No. 12, December 2014, pp. 1993-2002. (45 of 196 = 23% papers accepted)

Stolper, C.D, Kahng, M., Lin, Z., Foerster, F., Goel, A., Stasko, J., Chau, D.H., “GLO-STIX: Graph-Level Operations for Specifying Techniques and Interactive eXploration”, *IEEE Transactions on Visualization and Computer Graphics*, (Paper presented at InfoVis '14), Vol. 20, No. 12, December 2014, pp. 2320-2329. (45 of 196 = 23% papers accepted)

Han, Y., Rozga, A., Dimitrova, N., Abowd, G.D., Stasko, J., “Visual Analysis of Proximal Temporal Relationships of Social and Communicative Behaviors,” *Computer Graphics Forum*, (Paper presented at EuroVis '15) Vol. 34, No. 3, June 2015, pp. 51-60. (51 of 160 = 32% papers accepted)

Kahng, M., Navathe, S., Stasko, J., and Chau, D.H., “Interactive Browsing and Navigation in Relational Databases”, *PVLDB*, Vol. 9, No. 12, 2016, pp. 1017-1028.

Sadana, R. and Stasko, J., “Designing Multiple Coordinated Visualizations for Tablets”, *Computer Graphics Forum*, (Paper presented at EuroVis '16), Vol. 35, No. 3, June 2016, pp. 261-270. (50 of 183 = 27% papers accepted)

Hu, M., Wongsuphasawat, K., and Stasko, J., “Visualizing Social Media Content with SentenTree”, *IEEE Transactions on Visualization and Computer Graphics*, (Paper presented at InfoVis '16), Vol. 23, No. 1, January 2017, pp. 621-630. (38 of 165 = 23% papers accepted)

Isenberg, P., Heimerl, F., Koch, S., Isenberg, T., Xu, P., Stolper, C.D., Sedlmair, M., Chen, J., Möller, T., and Stasko, J., “vispubdata.org: A Metadata Collection about IEEE Visualization (VIS) Publications”, *IEEE Transactions on Visualization and Computer Graphics*, Vol. 23, No. 9, September 2017, pp. 2199-2206.

Srinivasan, A. and Stasko, J., “Orko: Facilitating Multimodal Interaction for Visual Network Exploration and Analysis”, *IEEE Transactions on Visualization and Computer Graphics*, (Paper presented at InfoVis '17) Vol. 24, No. 1, January 2018, pp. 511-521. (39 of 170 = 23% papers accepted)

Choo, J., Kim, H., Clarkson, E., Liu, Z., Lee, C., Li, F., Lee, H., Kannan, R., Stolper, C.D., Stasko, J. and Park, H. “VisIRR: A Visual Analytics System for Information Retrieval and Recommendation for Large-Scale Document Data”. *ACM Transactions on Knowledge Discovery from Data*, Vol. 12, No. 1, Article 8, January 2018, 20 pages.

Charles Perin, Romain Vuillemot, Charles Stolper, John Stasko, Jo Wood, Sheelagh Carpendale, “State of the Art of Sports Data Visualization”, *Computer Graphics Forum*, (CGF / Proc. of Eurovis '18 STAR reports), Vol. 37, No. 3, 2018, pp. 663-686.

Arjun Srinivasan, Steven M. Drucker, Alex Endert, and John Stasko, “Augmenting Visualizations with Interactive Data Facts to Facilitate Interpretation and Communication”, *IEEE Transactions on Visualization and Computer Graphics*, (Paper presented at InfoVis '18) Vol. 25, No. 1, January 2019, pp. 672-681. (47 of 185 = 25% papers accepted)

Emily Wall, Meeshu Agnihotri, Laura Matzen, Kristin Divis, Michael Haass, Alex Endert, and John Stasko, “A Heuristic Approach to Value-Driven Evaluation of Visualizations”, *IEEE Transactions on Visualization and Computer Graphics*, (Paper presented at InfoVis '18) Vol. 25, No. 1, January 2019, pp. 491-500. (47 of 185 = 25% papers accepted)

Dylan Cashman, Shah Rukh Humayoun, Florian Heimerl, Kendall Park, Subhajit Das, John Thompson, Bahador Saket, Abigail Mosca, John T. Stasko, Alex Endert, Michael Gleicher, Remco Chang, “A User-based Visual Analytics Workflow for Exploratory Model Analysis”, *Computer Graphics Forum*, (Paper presented at EuroVis '19) Vol. 38, No. 3, June 2019, pp. 185-199. (59 of 189 = 31% papers accepted)

Arvind Satyanarayan, Bongshin Lee, Donghao Ren, Jeffrey Heer, John Stasko, John Thompson, Matthew Brehmer, and Zhicheng Liu, “Critical Reflections on Visualization Authoring Systems”, *IEEE Transactions on Visualization and Computer Graphics*, (Paper presented at InfoVis '19), Vol. 26, No. 1, January 2020, pp. 461-471. (53 of 214 = 25% papers accepted)

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(114 of 442 = 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.

*Post-WIMP Interaction for Information Visualization*, Bongshin Lee, Arjun Srinivasan, Petra Isenberg and John Stasko, appears in Foundations and Trends in Human-Computer Interaction series, now Publishers, Boston, MA, 2021.

### 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.

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#### **D. Editor for Proceedings and Collections**

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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.

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## **E. Conference Presentations**

### 1. Invited Keynote Addresses

SoftVis '99, 3<sup>rd</sup> 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

International Symposium on Visual Computing 2010  
November 2010, Las Vegas, NV

Graphics Interface 2013 Conference  
May 2013, Regina, Saskatchewan, Canada

EuroVis 2014 Conference  
June 2014, Swansea, Wales, U.K.

CANVAS (Canadian Visual Analytics Summer School) 2014  
July 2014, Vancouver, B.C., Canada

IEEE Joint Intelligence and Security Informatics Conference (JISIC) 2014  
September 2014, The Hague, Netherlands

VIZBI (Visualizing Biological Data) Conference 2015  
March 2015, Boston, MA

International Symposium on Graph Drawing and Network Visualization 2019  
September 2019, Prague, Czech Republic

ChinaVis 2021 Conference  
July 2021, Wuhan China (remote presentation)

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.

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(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.

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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.)

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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.

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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.

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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.

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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 4<sup>th</sup> 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," *Proceedings of the IJCAI-09 Workshop on Explanation-Aware Computing*, July 2009.

Han, Y., Stuntebeck, E. Stasko, J., and Abowd, G., "A Visual Analytics System for Radio Frequency Fingerprinting-based Localization", *Proceedings of IEEE VAST '09*, pp. 35-42, October 2009.

(26 of 69 = 38% papers accepted)

Kang, Y., Görg, C., and Stasko, J., "Evaluating Visual Analytics Systems for Investigative Analysis: Deriving Design Principles from a Case Study", *Proceedings of IEEE VAST '09*, pp. 139-146, October 2009.

(26 of 69 = 38% papers accepted)

Stasko, J., Cohen, S., Hunter, L., and Parry, J., "How interactive visualization can assist investigative analysis: Views and perspectives from domain experts",

*Proceedings of IEEE VAST '09*, pp. 279-281, October 2009. (Organized Panel)

Hutchings, D.R. and Stasko, J., "Controlling information display in larger pixel spaces: a study of window snipping by multiple-monitor users," *Proceedings of the 48th Annual Southeast Regional Conference (ACM SE '10)*, Oxford, MS, April 2010, Article 73, 6 pages.

Görg, C., Tipney, H., Verspoor, K., Baumgartner Jr, W.A., Cohen, K.B., Stasko, J., Hunter, L.E., "Visualization and Language Processing for Supporting Analysis Across the Biomedical Literature", *Proceedings of International Conference on Knowledge-Based and Intelligent Information and Engineering Systems (KES)*, September 2010, pp. 420-429.

Görg, C., Kihm, J., Choo, J., Liu, Z., Muthiah, S., Park, H., and Stasko, J., “Combining Computational Analyses and Interactive Visualization to Enhance Information Retrieval”, 2010 Workshop on Human-Computer Interaction and Information Retrieval, New Brunswick, NJ, August 2010.

Kim, T., Blom, J., and Stasko, J., “Exploring Complex Mobile Life through Lightweight Visualizations,” *Proceedings of EuorVA 2011*, Bergen, Norway, May 2011, pp. 37-40.

Romero, M., Vialard, A., Peponis, J., Stasko, J., Abowd, G., “Evaluating Video Visualizations of Human Behavior,” *Proceedings of ACM CHI 2011*, Vancouver, B.C., May 2011, pp. 1441-1450.  
(409 of 1526 = 26% papers accepted)

Kim, T., Blom, J. and Stasko, J., “Exploring Complex Mobile Life through Lightweight Visualizations,” *Proceedings of EuroVA 2011*, Bergen, Norway, May 2011, pp. 37-40.

Kang, Y-A. and Stasko, J., “Characterizing the Intelligence Analysis Process: Informing Visual Analytics Design through a Longitudinal Field Study,” *Proceedings of IEEE VAST '11*, Providence, RI, October 2011, pp. 21-30.  
(26 of 80 = 33% papers accepted)

Liu, Z., Navathe, S.B., and Stasko, J., “Network-based Visual Analysis of Tabular Data,” *Proceedings of IEEE VAST '11*, Providence, RI, October 2011, pp. 41-50.  
(Best Paper Honorable Mention)  
(26 of 80 = 33% papers accepted)

Heinrich, J., Stasko, J., Weiskopf, D., “The Parallel Coordinates Matrix”, *Proceedings of EuroVis '12 - Short Papers*, June 2012, pp. 37-41.

Choo, J., Lee, H., Liu, Z., Stasko, J., Park, H., “An interactive visual testbed system for dimension reduction and clustering of large-scale high-dimensional data,” *Proceedings of SPIE 8654, Visualization and Data Analysis*, February 2013, 865402.

Han, Y., Rozga, A., Stasko, J., and Abowd, G.D., “Visual Exploration of Common Behaviors for Developmental Health”, *Proceedings of Visual Analytics in Healthcare*, November 2013, pp. 15-18.

Sadana, R. and Stasko, J., “Designing and Implementing an Interactive Scatterplot Visualization for a Tablet Computer”, *Proceedings of AVI 2014*, May 2014, pp. 265-272.  
(31 of 110 = 28% papers accepted)

Stasko, J., “Value-Driven Evaluation of Visualizations”, *Proceedings of BELIV 2014*, November 2014, pp. 46-53.

Xu, P., Cao, N., Qu, H., and Stasko, J., “Interactive Visual Co-Cluster Analysis of Bipartite Graphs”, *Proceedings of IEEE PacificVis 2016*, April 2016, pp. 32-39.  
(29 of 97=30% papers accepted)

Saket, B., Endert, A., and Stasko, J., “Beyond Usability and Performance: A Review of User Experience-focused Evaluations in Visualization”, *Proceedings of BELIV 2016*, October 2016, pp. 133-142.

Sadana, R. and Stasko, J., “Expanding Selection for Information Visualization Systems on Tablet Devices”, *Proceedings of Interactive Spaces and Surfaces (ISS) 2016*, November 2016, pp. 149-158.  
(33 of 119=28% papers accepted)

Godwin, A. and Stasko, J., “HotSketch: Drawing Police Patrol Routes among Spatiotemporal Crime Hotspots”, *Proceedings of the Hawaii International Conf. on Systems Sciences (HICSS '17)*, January 2017, pp. 1372-1380.

Srinivasan, A. and Stasko, J., “Natural Language Interfaces for Data Analysis with Visualization: Considering What Has and Could Be Asked”, *Proceedings of EuroVis '17 – Short Papers*, June 2017, pp. 55-59.

Godwin, A., Wang, Y., and Stasko, J., “TypoTweet Maps: Characterizing Urban Areas through Typographic Social Media Visualization”, *Proceedings of EuroVis '17 – Short Papers*, June 2017, pp. 25-29.

Godwin, A. and Stasko, J., “Nodes, Paths, and Edges: Using Mental Maps to Augment Crime Data Analysis in Urban Spaces”, *Proceedings of EuroVis '17 – Short Papers*, June 2017, pp. 19-23.

Liu, Z., Thompson, J., Wilson, A., Dontcheva, M., Delorey, J., Grigg, S., Kerr, B., and Stasko, J., “Data Illustrator: Augmenting Vector Design Tools with Lazy Data Binding for Expressive Visualization Authoring”, *Proceedings of ACM CHI '18*, April 2018, Paper 123, 13 pages.

**(Best Paper Award)**  
(667 of 2590=26% papers accepted)

Thompson, J., Srinivasan, A., and Stasko, J., “Tangraphe: Interactive Exploration of Network Visualizations using Single Hand, Multi-touch Gestures”, *Proceedings of AVI '18*, May 2018, 5 pages.

Emily Wall, John Stasko and Alex Endert, "Toward a Design Space for Mitigating Cognitive Bias in Vis," (Short paper), *Proceedings of IEEE VIS '19*, Oct. 2019, pp. 111-115.

(59 of 186 = 32% papers accepted)

Malika Agarwal, Arjun Srinivasan and John Stasko, "VisWall: Visual Data Exploration Using Direct Combination on Large Touch Displays", (Short paper), *Proceedings of IEEE VIS '19*, Oct. 2019, pp. 26-30.

(59 of 186 = 32% papers accepted)

Po-Ming Law, Alex Endert, and John Stasko, "Characterizing Automated Data Insights", (Short Paper), 2020 IEEE VIS Conference, Oct. 2020.

(59 of 164 = 36% papers accepted)

Po-Ming Law, Alex Endert, and John Stasko, "What are Data Insights to Professional Visualization Users?", (Short Paper), 2020 IEEE VIS Conference, Oct. 2020.

(59 of 164 = 36% papers accepted)

John R. Thompson, Zhicheng Liu, and John Stasko, "Data Animator: Authoring expressive Animated Data Graphics", *Proceedings of ACM CHI '21*, May 2021, Paper 15, 18 pages.

(749 of 2844 = 26% papers accepted)

Arjun Srinivasan, Nikhila Nyapathy, Bongshin Lee, Steven M. Drucker, and John Stasko, "Collecting and Characterizing Natural Language Utterances for Specifying Data Visualizations", *Proceedings of ACM CHI '21*, May 2021, Paper 464, 10 pages.

(749 of 2844 = 26% papers accepted)

Po-Ming Law, Leo Yu-Ho Lo, Alex Endert, John Stasko, and Huamin Qu, "Causal Perception in Question-Answering Systems", *Proceedings of ACM CHI '21*, May 2021, Paper 603, 15 pages.

(749 of 2844 = 26% papers accepted)

Hayeong Song, Yu Fu, Bahador Saket, and John Stasko, "Understanding the Effects of Missing Values on Visual Data Exploration" (Short Paper) 2021 IEEE VIS Conference.

### 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.

“Visualizing Text”  
Investigative Reporters and Editors Conference on Computer-Assisted Reporting  
February 2011, Raleigh, NC

“Research with Impact”  
VAC Consortium 2011  
April 2011, College Park, MD

“Transitioning Research into Re-useable Open Source or Commercial Software”  
IEEE VIS 2016  
October 2016, Baltimore, MD

“Succeeding by Failing – The Iceberg in VIS Careers”  
IEEE VIS 2018  
October 2018, Berlin, Germany

## **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 was 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 and a download link can be found at <http://www.cc.gatech.edu/gvu/ii/jigsaw>.

CiteVis – CiteVis is a visualization system that shows citation patterns among the papers from the IEEE Information Visualization Conference. The system shows papers’ counts of Google Scholar citations as well as direct citations between papers from the conference. It uses color and interaction to show the citation network, rather than the typical network of edges. More information about the system and a link to run it can be found at <http://www.cc.gatech.edu/gvu/ii/citevis/>.

NL4DV – NL4DV is a Python package that takes as input a tabular dataset and a natural language query about that dataset. In response, the toolkit returns an analytic specification modeled as a JSON object containing data attributes, analytic tasks, and a list of Vega-Lite specifications relevant to the input query. In doing so, NL4DV aids

visualization developers who may not have a background in NLP, enabling them to create new visualization NLIs or incorporate natural language input within their existing systems.

<https://nl4dv.github.io/nl4dv/>

## 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 Reserach 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)

Georgia Tech amount received: \$629,648 (4/09-9/16)

Supporting Investigative Analysts and Researchers in Sense-making across Large Document Collections through Visual Analytics

National Science Foundation (III)

Amount funded: \$489,671 (8/09-7/12)

The Visualization Design Environment

Joint proposal with Kitware Corp. (Lead), and others (GT subcontract)

DARPA XDATA

Amount requested: \$499,499 (GT component)

Amount funded: \$480,390 (10/12-3/17)

Research Gift

Georgia Aquarium

Amount funded: \$2000 (11/12)

HCC: CGV: Small: Creating Information Visualizations without Programming

National Science Foundation

Amount funded: \$474,866 (8/13-7/16)

Research Gift

Adobe

Amount funded: \$11,000 (12/13 & 5/14)

Research Gift

Microsoft Research

Amount funded: \$8300 & Perceptive Pixel display (7/14)

Bringing Information Visualization to Mobile and Wearables  
Google Research Award  
Amount funded: \$55,310 (3/15)

HCC: CGV: Small: Creating Information Visualizations without Programming  
NSF REU Supplement  
Amount requested: \$8,000  
Amount funded: \$8,000 (12/15-8/16)

Data-Driven Decision-Making via Visual Analytics on the Microsoft Surface Hub  
Joint proposal with R. Basole, P. Chau, A. Endert  
Microsoft Research Award  
Amount funded: \$25,000 & Microsoft Surface Hub device (expected Jan. 2016)

Personal Data Visualization and Analytics, Research gift  
Nokia  
Amount funded: \$26,368 (1/16)

Modeling Human Comprehension of Data Visualizations  
Sandia National Laboratory  
Amount funded: \$30,000 (5/16)

Human Comprehension of Data Visualizations  
Sandia National Laboratory  
Amount funded: \$60,000 (10/16)

Research Gift  
Adobe  
Amount funded: \$8,100 (11/16)

Research Gift  
Adobe  
Amount funded: \$6,300 (2/17)

Research Gift  
Adobe  
Amount funded: \$10,000 (5/17)

User-Driven Model Steering and Curation via Inference and Model-Space  
Sampling  
Joint proposal with R. Chang (PI), A. Endert, M. Gleicher  
DARPA  
Amount requested: \$924,406 GT portion (3/17)

Research Gift  
Adobe

Amount funded: \$19,500 (8/17)

Creating an Interprocedural Analyst Oriented Data Flow Representation

Sandia National Laboratory

Amount funded: \$48,500 (10/17)

III: Small: Creating Natural Data Visualization and Analysis Environments

National Science Foundation

Amount funded: \$493,752 (11/17)

Research Gift

Adobe

Amount funded: \$7,000 (1/18)

Research Gift

Adobe

Amount funded: \$11,900 (9/18)

Research Gift

Adobe

Amount funded: \$5,000 (2/19)

Research Gift

Adobe

Amount funded: \$5,000 (5/19)

Research Gift

Adobe

Amount funded: \$5,000 (11/19)

## **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. Shackelford, 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  
Best Paper Award – Honorable Mention, IEEE Information Visualization 2009  
Best Paper Award – Honorable Mention, IEEE VAST 2011  
ACM Distinguished Scientist, inducted 2011  
Most Influential Paper from 20 years ago, IEEE VL/HCC Conference 2012  
IEEE VGTC Visualization Technical Achievement Award, 2012  
IEEE Fellow, inducted 2014  
ACM SIGSOFT Impact Paper Award, 2015  
Most Influential Paper from 20 years ago, IEEE VL/HCC Conference 2015  
Best Poster Award – Honorable Mention, IEEE VIS 2015,  
ACM CHI Academy, inducted 2016  
Test of Time Award (10-year top impact paper) – IEEE VAST 2017  
Best Paper Award, ACM CHI Conference 2018  
Test of Time Award (10-year top impact paper) – IEEE Information Visualization 2018  
IEEE VIS Academy, inducted 2019

### III. SERVICE

#### A. Professional Activities

1. Memberships and Activities in Professional Societies
  - Member, Phi Beta Kappa Honor Society, 1982-present
  - Member, IEEE Computer Society, 1986-2011
  - Member, Association for Computing Machinery, 1986-2011
  - Senior Member, IEEE Computer Society, 2011-present
  - Senior Member, Association for Computing Machinery, 2011-present
  
2. Editorial Activities
  - Associate Editor, *Journal of Visual Languages and Computing*, 1994-2015
  - 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*, 2006-2013
  - Editorial Board, *IEEE Transactions on Visualization and Computer Graphic*, 2017-2021
  
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 Symposium on Information Visualization 2003
  - Posters Co-Chair, IEEE Symposium on Information Visualization 2004
  - Papers Co-Chair, IEEE Symposium on Information Visualization 2005
  - Papers Co-Chair, IEEE Information Visualization Conference 2006
  - Workshop Co-Chair, Dagstuhl (Germany) seminar on Information Visualization, May 2007
  - General (Conference) Chair, IEEE Information Visualization Conference 2007
  - Papers Co-Chair, IEEE Visual Analytics Science & Technology (VAST) Conference 2009
  - Workshop Co-Chair, Dagstuhl (Germany) seminar on Information Visualization and Human-Computer Interaction, June 2010
  - Workshop Co-Organizer, “Supporting Asynchronous Collaboration in Visual Analytics Systems” at AVI 2012 Conference

Workshop Co-Organizer, “2nd Workshop on Interactive Visual Text Analytics”  
at IEEE VisWeek 2012  
Steering Committee, ACM Symposium on Software Visualization, 2003-2012  
Steering Committee, IEEE Information Visualization Conference, 2006-2012  
Executive Committee, IEEE VisWeek, 2009-2012  
Workshop Co-Organizer, “Sports Data Visualization: What’s the Score?” at IEEE  
VIS 2013  
Workshop Co-Organizer, “Public Health's Wicked Problems: Can InfoVis Save  
Lives?” at IEEE VIS 2013  
General Chair, IEEE VIS 2013  
VIS25 Anniversary Planning Committee, IEEE VIS 2014  
Steering Committee, IEEE VAST Conference, 2014-present  
Papers Co-Chair, IEEE Visual Analytics Science & Technology Conference 2016  
Workshop Co-Organizer, “Multimodal Interaction for Data Visualization”, at AVI  
2018 Conference  
Chair, Steering Committee, IEEE VAST Conference, 2018-2020  
Doctoral Colloquium Co-Chair, INTERACT 2021 Conference

#### 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, 2008 ACM Symposium on Software Visualization  
Program Committee, 2009 AAI Spring Symposium on Technosocial Predictive  
Analytics  
Program Committee, 2009 IEEE Information Visualization Conference  
Program Committee, 2010 IEEE Pacific Visualization Symposium  
Program Committee, 2010 International Workshop on Intelligent Visual Interfaces for  
Text Analysis  
Program Committee, 2010 Beyond time and errors: novel evaluation methods for  
Information Visualization Workshop (BELIV), at CHI 2010  
Program Committee, 2010 IEEE Information Visualization Conference  
Program Committee, 2010 ACM Symposium on Software Visualization  
Program Committee, 2011 EuroVis Symposium  
Program Committee, AAI-11 Workshop on Scalable Integration of Analytics and  
Visualization  
Program Committee, 2011 IEEE Pacific Visualization Symposium  
Program Committee, 2011 IEEE VAST Conference  
Program Committee, 2012 IEEE Pacific Visualization Symposium  
Program Committee, 2012 EuroVis Conference  
Program Committee, 2012 BELIV Workshop  
Program Committee, 2012 IEEE Information Visualization Conference  
Program Committee, 2013 INTERACT Conference  
Program Committee, 2014 Workshop on Interactive Language Learning,  
Visualization, and Interfaces  
Program Committee, 2014 IEEE Joint Intelligence & Security Informatics  
Conference  
Program Committee, 2014 IEEE Information Visualization Conference  
Program Committee, 2014 BELIV Workshop  
Program Committee, 2015 ACM CHI Workshops  
Program Committee, 2015 Workshop on Visual Text Analytics  
Program Committee, 2015 IEEE Intelligence Security Informatics (ISI) Conference  
Program Committee, 2015 EuroVis Conference

Program Committee, 2015 IEEE VAST Conference  
Program Committee, 2015 BusinessVis Workshop at IEEE VIS '15  
Program Committee, 2015 Workshop on Data Exploration for Interactive Surfaces (DEXIS) at ACM ITS '15  
Associate Chair, 2016 ACM Advanced Visual Interfaces (AVI) Conference  
Program Committee, 2016 EuroVis Conference  
Program Committee, 2016 ACM BELIV Workshop  
Program Committee, 2017 EuroVis Conference  
Program Committee, 2017 IUI Workshop on Exploratory Search and Interactive Data Analytics  
Program Committee, 2017 Workshop on Immersive Analytics: Exploring Future Interaction and Visualization Technologies for Data Analytics  
Program Committee, 2017 IEEE Information Visualization Conference  
Associate Chair, 2018 ACM Advanced Visual Interfaces (AVI) Conference  
Program Committee, 2018 CHI Workshop on Data Visualization on Mobile Devices  
Associate Chair, 2018 ACM Conf. on Human Factors in Computing Systems (CHI)  
Program Committee, 2018 ACM BELIV Workshop  
Program Committee, 2018 PacificVis Conference  
Program Committee, 2018 IEEE Information Visualization Conference  
Program Committee, 2019 EuroVA Workshop  
Program Committee, 2019 PacificVis Conference  
Program Committee, 2019 IEEE Information Visualization Conference  
Program Committee, 2020 PacificVis Conference  
Program Committee, 2020 EuroVis Conference  
Program Committee, 2020 EuroVA Workshop  
Program Committee, 2020 ACM BELIV Workshop

## 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.  
GVU 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  
 GIT GTScholar Planning Committee, 2014-2015  
 School of Interactive Computing, Faculty Hiring Chair, 2014-15  
 School of Interactive Computing, Visual Analytics Area Leader, 2015-2021  
 School of Interactive Computing, PhD Admissions Chair, 2015-16  
 College of Computing, Graduate Committee, 2015-present  
 GIT, Undergraduate Curriculum Committee, 2016-2017  
 College of Computing, School of Interactive Computing Chair Search Committee,  
 2017  
 College of Computing, DCI Director Search Committee Chair, 2017-2018  
 College of Computing, Dean Search Committee, 2018-2019  
 GIT, Undergraduate Curriculum Committee, 2019-2020

### **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"

Kulsoom Abdullah                  April 2006                      Advisor: John Copeland  
"Scaling and Visualizing Network Data to Facilitate in Intrusion Detection Tasks"

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”

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”

Jeonghwa Yang December 2009 Advisor: Keith Edwards  
“Eden: An Interactive Home Network Management System”

Na Wen (Management) June 2010 Advisor: Nicholas Lurie  
“Essays on Consumer Decision-Making in Interactive and Information Rich Environments”

Brian Dorn August 2010 Advisor: Mark Guzdial  
“A case-based approach for supporting the informal computing education of end-user programmers”

Saurav Sahay December 2011 Advisor: Ashwin Ram  
“Socio-Semantic Conversational Information Access”

Craig Tashman April 2012 Advisor: W. Keith Edwards  
“LiquidText: active reading through multitouch document manipulation”

Yevgeniy Medynskiy April 2012 Advisor: Beth Mynatt  
“Design and evaluation of a health-focused personal informatics application with support for generalized goal management”

Keith Kline (Psychology) April 2012 Advisor: Richard Catrambone  
“The effects of visualizations and spatial ability on learning from static multimedia instructions”

Ben Medler (LCC) July 2012 Advisor: Brian Magerko  
“Play with data - an exploration of play analytics and its effect on player experiences”

Jennifer Stoll August 2012 Advisor: W. Keith Edwards  
“Information Sharing in a Non-Profit Network”

Ben Davison May 2013 Advisor: Bruce Walker

“Universal Graph Literacy: Understanding How Blind and Low Vision Students can Satisfy the Common Core Standards with Accessible Auditory Graphs”

Tanyoung Kim                      May 2013                      Advisor: Carl diSalvo  
“Coded Visualization: The Rhetoric and Aesthetics of Data-based Cultural Interface”

Jaegul Choo                      July 2013                      Advisor: Haesun Park  
“Integration of computational methods and visual analytics for large-scale high-dimensional data”

Troy Nunnally                      August 2014                      Advisor: Raheem Bayeh  
“Advanced Visualizations for Network Security”

Yee Chieh Chew                      December 2014                      Advisor: Bruce Walker  
“Assessing the Use of Auditory Graphs for Middle School Mathematics”

Gabriel Reyes                      May 2017                      Advisor: Gregory Abowd  
“Enabling One-Handed Input for Wearable Computing”

Jared Batterman (Psychology)      May 2019                      Advisor: Richard Catrambone  
“Understanding the Misunderstanding: Why Confidence Intervals are Poorly Understood and Evaluating Proposed Solutions across Sensory Modalities”

Bahador Saket                      May 2020                      Advisor: Alex Endert  
“Visualization by Demonstration”

Emily Wall                      May 2020                      Advisor: Alex Endert  
“Detecting and Mitigating Human Bias in Visual Analytics”

Subhajit Das                      2021                      Advisor: Alex Endert  
“Empowering Users to Communicate their Preferences to Machine Learning Models in Visual Analytics”

#### **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

Ian Li

“Personal Informatics and Context – Using Context to Reveal Factors that Affect Behavior”

Human-Computer Interaction Institute, Carnegie-Mellon Univ.

Advisors: Anind Dey and Jodi Forlizzi

August 2011

Christopher Andrews

“Space to Think: Sensemaking and Large, High-Resolution Displays”

Dept. of Computer Science, Virginia Tech

Advisor: Chris North

August 2011

Jeff Rzeszutarski

“Uncovering Nuances in Complex Data Through Focus and Context Visualizations”

Human-Computer Interaction Institute, Carnegie-Mellon University

Advisor: Aniket Kittur

May 2017

Caleb Reach

“Smooth Interactive Visualization”

Dept. of Computer Science, Virginia Tech

Advisor: Chris North

August 2017

#### **E. Georgia Tech Honors and Awards**

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

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

College of Computing, Faculty Mentor Award, 2020

## 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”

M.I.T., Boston, MA, September 2009  
“Visual Analytics for Investigative Analysis and Exploration of Document Collections”

Emory University, Atlanta, GA, November 2009  
“Information Exploration and Analysis through Interactive Visualization”

Duke University, Durham, NC, January 2010  
“Investigative Analysis and Exploration of Document Collections with Jigsaw”

NSF III Program Annual Review Meeting, Arlington, VA, April 2010  
“Visual Analytics”

AAAS Symposium on Novel Methods for the Evaluation of Federal Research Programs, Washington, D.C., April 2010  
“Visual Analytics for Exploring and Investigating Research Programs”

NSF, Arlington, VA, August 2010  
“Jigsaw - Visual Analytics for Data & Document Exploration and Understanding”

Justice Institute of British Columbia, Vancouver, B.C., September 2010  
“Investigative Analysis of Document Collections with Jigsaw”

SUNY Stony Brook, Computer Science **Distinguished Lecture Series**, February 2011  
“Visual Analytics for Investigative Analysis and Exploration of Documents and Data”

Investigative Reporters and Editors, Computer-Assisted Reporting Conference, Raleigh, NC, February 2011  
“Jigsaw”

CNN, Atlanta, GA, March 2011  
“Investigative Analysis of Document Collections with Jigsaw”

National Academies Board on Science, Technology, and Economic Policy, Workshop on Measuring the Impacts of Federal Investments in Research, Session on Emerging Metrics and Models for Assessing Research Impacts, Washington D.C., April 2011  
“Visual Analytics”

Dalhousie University, Halifax, Nova Scotia, Canada, November 2011  
**Dorothy J. Killam Memorial Lecture Series**  
“Visual Analytics for Investigative Analysis and Exploration of Documents and Data”

Seoul National University, Seoul, South Korea, April 2012  
“Visual Analytics for Investigative Analysis and Exploration of Documents and Data”

Purdue University, Industrial Engineering, **Distinguished Seminar Series**, February 2013  
“The Value of Visualization for Exploring and Understanding Data”

University of Arizona, Computer Science, November 2013  
“The Value of Visualization for Exploring and Understanding Data”

SIAM Intl. Conf. on Data Mining '14 Workshop on Exploratory Data Analysis,

Philadelphia, PA, April 2014  
“The Value of Visualization for Exploring and Understanding Data”  
Emory Hospital Quarterly Analytics Initiative, Atlanta, GA, May 2014  
“Information Visualization and Visual Analytics”  
NITRD/SF Workshop on Frontiers in Visualization, Washington DC, May 2014  
“Data Visualization”  
Boeing Data Analytics Community of Excellence, Seattle, WA, August 2014  
“The Value of Visualization for Exploring and Understanding Data”  
KDD '14 Workshop on Large-Scale Sports Analytics, New York, NY, August 2014  
“Sports Data Visualization”  
IBM, Cambridge MA, March 2015  
“Visualization Research from the Information Interfaces Lab”  
University of Toronto, Toronto, Ontario, June 2015  
“Reflections on Data Visualization (Some Things I’ve Learned Along the Way)”  
Disney Research, Burbank, CA, July 2015  
“Data Visualization & Visual Analytics”  
Emory University, Institute for Quantitative Theory and Methods, Atlanta, GA,  
October 2015  
“The Value of Visualization for Exploring and Understanding Data”  
Lehigh University, **Data-X Distinguished Speaker Series**, Bethlehem, PA,  
November 2015  
“The Value of Visualization for Exploring and Understanding Data”  
Oak Ridge National Lab, Oak Ridge, TN, January 2016  
“New Approaches for Information Visualization: Rethinking Existing Notions”  
Bentley University, Waltham, MA, April 2016  
“The Value of Visualization for Exploring and Understanding Data”  
Nokia, San Jose, CA, May 2016  
“The Value of Visualization for Exploring, Presenting, and Understanding Data”  
Sandia National Lab, Albuquerque, NM, May 2016  
“New Approaches for Information Visualization: Rethinking Existing Notions”  
City University London, London, England, June 2016  
“The Value of Visualization for Exploring, Presenting, and Understanding Data”  
Air Force Academy, Colorado Springs, CO, October 2016  
“Visual Analytics on Text and Document Collections”  
University of North Carolina-Charlotte, **Distinguished Lecture Series**, January, 2018  
“The Value of Visualization for Exploring, Presenting, and Understanding Data”  
University of Oklahoma, **Hitachi Distinguished Lecture Series**, March, 2018  
“The Value of Visualization for Exploring, Presenting, and Understanding Data”  
University of Colorado, October, 2018  
“The Value of Visualization for Exploring, Presenting, and Understanding Data”  
M.I.T., November, 2018  
“The Value of Visualization for Exploring, Presenting, and Understanding Data”  
North Carolina State Univ., April 2019  
“Techniques and Design Patterns for Data-Driven Storytelling”