

ADAM PERER, Ph.D.

EDUCATION

- August 2008 **Ph.D. in Computer Science**. *University of Maryland, College Park, MD*
Thesis: Integrating Statistics and Visualization to Improve Exploratory Social Network Analysis
Advisor: Ben Shneiderman
Committee: Ben Bederson, Lise Getoor, Jen Golbeck, Alan Neustadt
- May 2005 **Master of Science in Computer Science**, *University of Maryland, College Park, MD*
- May 2002 **Bachelor of Science in Computer Science** *cum laude*, Minor in Artificial Intelligence
Case Western Reserve University, Cleveland, OH

POSITIONS

- 2018 - Assistant Research Professor at Carnegie Mellon University, *Pittsburgh, PA*
- 2011 - 2018 Research Scientist at IBM Research, *Yorktown Heights, NY*
- 2016 - 2018 Adjunct Professor at Carnegie Mellon University, *Pittsburgh, PA*
- 2017 Lecturer at University of Pennsylvania, *Philadelphia, PA*
- 2010 - 2011 Research Scientist at IBM Research, *Cambridge, MA*
- 2008 - 2010 Research Scientist at IBM Research, *Haifa, Israel*
- 2005 , 2006 Research Intern at Microsoft Research, *Redmond, Washington*
- 2004 Research Intern at Xerox PARC, *Palo Alto, California*
- 2003 Research Intern at Institute for Defense Analyses, *Alexandria, Virginia*
- 2002 Research Intern at Zaxel Systems, Inc, *Pittsburgh, Pennsylvania*
- 2001 Research Intern at TerraSim Inc., *Pittsburgh, Pennsylvania*
- 1999 - 2000 Research Intern at Carnegie Mellon University's Robotics Institute, *Pittsburgh, Pennsylvania*
- 1997 - 1998 Research Intern at Carnegie Mellon University's Department of Physics, *Pittsburgh, Pennsylvania*

PUBLICATIONS

BOOK CHAPTERS

- B.1 Jianning Hu, **Adam Perer**, and Fei Wang. Data Driven Analytics for Personalized Healthcare. In *Healthcare Informatics Management Systems: 4th Edition*. Springer. September 2015.
- B.2 **Adam Perer**. Finding Beautiful Insights in the Chaos of Social Network Visualizations. In *Beautiful Visualization*. O'Reilly Press. June 2010.

JOURNAL PAPERS (REFEREED)

- J.1 Hendrik Strobel, Sebastian Gehrmann, Michael Behrisch, **Adam Perer**, Hanspeter Pfister, Alexander M. Rush. Seq2Seq-Vis: A Visual Debugging Tool for Sequence-to-Sequence Models. *IEEE Transactions in Visualization and Computer Graphics (IEEE TVCG)*. To be presented at IEEE Visual Analytics Science and Technology (VAST). (2018).
- J.2 Bum Chul Kwon, Ben Eysenbach, Janu Verma, Kenney Ng, Christopher deFilippi, Walter F. Stewart, and **Adam Perer**. Clustervision: Visual Supervision of Unsupervised Clustering. *IEEE Transactions in Visualization and Computer Graphics (IEEE TVCG)*. Presented at IEEE Visual Analytics Science and Technology (VAST). (2017).

- J.3 Fan Du, Ben Shneiderman, Catherine Plaisant, Sana Malik, and **Adam Perer**. Coping with Volume and Variety in Temporal Event Sequences: Strategies for Sharpening Analytic Focus. *IEEE Transactions in Visualization and Computer Graphics (IEEE TVCG)*. (2017).
- J.4 Josua Krause, **Adam Perer**, and Harry Stavropoulous. Supporting Iterative Cohort Construction with Visual Temporal Queries. *IEEE Transactions in Visualization and Computer Graphics (IEEE TVCG)*. Presented at IEEE Visual Analytics Science and Technology (VAST). (2015).
- J.5 **Adam Perer**, Fei Wang, and Jianying Hu. Mining and Exploring Care Pathways from Electronic Medical Records with Visual Analytics. *Journal of Biomedical Informatics (JBI)*. (2015).
- J.6 Josua Krause, **Adam Perer**, and Enrico Bertini. INFUSE: Interactive Feature Selection for Predictive Modelling of High Dimensional Data. *IEEE Transactions in Visualization and Computer Graphics (IEEE TVCG)*. Presented at IEEE Visual Analytics Science and Technology (VAST). (2014).
- J.7 Charles Stolper, **Adam Perer**, and David Gotz. Progressive Visual Analytics: User-Driven Visual Exploration of In-Progress Analytics. *IEEE Transactions in Visualization and Computer Graphics (IEEE TVCG)*. Presented at IEEE Visual Analytics Science and Technology (VAST). (2014).
- J.8 David Gotz, Fei Wang, and **Adam Perer**. A Methodology for Interactive Mining and Visual Analysis of Clinical Event Patterns using Electronic Health Records Data. *Journal of Biomedical Informatics (JBI)*. (2014).
- J.9 Zhiyuan Zhang, David Gotz, and **Adam Perer**. Interactive Cohort Analysis and Exploration. *Journal of Information Visualization (IVS)*. (2014).
- J.10 Jimeng Sun, Candace D McNaughton, Ping Zhang, **Adam Perer**, Aris Gkoulalas-Divanis, Joshua C Denny, Jacqueline Kirby, Thomas Lasko, Alexander Saip, Bradley A Malin. Predicting changes in hypertension control using electronic health records from a chronic disease management program. *Journal of the American Medical Informatics Association (JAMIA)*. 21(2): 337-344 (2014)
- J.11 Jeffrey Heer and **Adam Perer**. ORION: A System for Modeling, Transformation and Visualization of Multi-dimensional Heterogeneous Networks. *Information Visualization Journal*. 13(2): 111-133. (2014).
- J.12 **Adam Perer**, Ido Guy, Erel Uziel, Inbal Ronen, Michal Jacovi. The Longitudinal Use of SaNDVis: Visual Social Network Analytics in the Enterprise. *IEEE Transactions in Visualization and Computer Graphics (IEEE TVCG)*. (2013).
- J.13 **Adam Perer** and Ben Shneiderman. Integrating Statistics and Visualization for Exploratory Power: From Long-Term Case Studies to Design Guidelines. *IEEE Computer Graphics and Applications (CG&A): Special Issue on Visual Analytics Evaluation*. 29(3): 39-51 (2009).
- J.14 **Adam Perer**, Ben Shneiderman, Douglas W. Oard: Using rhythms of relationships to understand e-mail archives. *Journal of the American Society for Information Science and Technology (JASIST)* 57(14): 1936-1948 (2006).

CONFERENCE PAPERS (REFEREED)

- C.1 Josua Krause, **Adam Perer**, and Kenney Ng. Interacting with Predictions: Visual Inspection of Black-box Machine Learning Models. *ACM Conference on Human Factors in Computing Systems (CHI 2016)*. San Jose, California. (2016).
- C.2 **Adam Perer** and Fei Wang. Frequency: Interactive Mining and Visualization of Temporal Frequent Event Sequences. *ACM Conference on Intelligent User Interfaces (IUI 2014)*. Haifa, Israel. (2014).
- C.3 Yiqin Yu, Haifeng Liu, Jing Li, Xiang Li, Jing Mei, Guotong Xie, **Adam Perer**, Fei Wang, and Jianying Hu. Care Pathway Workbench: Evidence Harmonization from Guideline and Data. *European Medical Informatics Conference (MIE 2014)*. Istanbul, Turkey (2014).
- C.4 **Adam Perer** and David Gotz. Data-Driven Exploration of Care Plans for Patients. *Extended Abstracts of ACM Conference on Human Factors in Computing Systems (CHI 2013)*. Paris, France. (2013).
- C.5 **Adam Perer**, Jimeng Sun. MatrixFlow: Temporal Network Visual Analytics to Track Symptom Evolution during Disease Progression. *American Medical Informatics Association Annual Symposium (AMIA 2012)*. Chicago, Illinois. (2012).
- C.6 Michael Muller, Kate Ehrlich, Ido Guy, Tara Matthews, **Adam Perer**, Inbal Ronen. Diversity among Enterprise Online Communities: Collaborating, Teaming, and Innovating through Social Media. *ACM Conference on Human Factors in Computing Systems (CHI 2012)*. Austin, Texas. (2012).

- C.7 **Adam Perer**, Ido Guy, Erel Uziel, Inbal Ronen, Michal Jacovi: Visual Social Network Analytics for Relationship Discovery in the Enterprise. IEEE Conference on Visual Analytics Science and Technology (VAST 2011). Providence, Rhode Island, USA. (2011). *Best Paper Runner-Up*.
- C.8 Jeffrey Heer, **Adam Perer**: Orion: A System for Modeling, Transformation and Visualization of Multidimensional Heterogeneous Networks. IEEE Conference on Visual Analytics Science and Technology (VAST 2011). Providence, Rhode Island, USA. (2011).
- C.9 Michal Jacovi, Ido Guy, **Adam Perer**, Inbal Ronen, Erel Uziel and Michael Maslenko. Digital Traces of Interest: Deriving Interest Relationships from Social Media Interactions. European Conference on Computer-Supported Cooperative Work (ECSCW 2011). Aarhus, Denmark. (2011).
- C.10 Ido Guy, **Adam Perer**, Tal Daniel, Ohad Greenspan, Itai Turbahn: Guess Who? Enriching the Social Graph through a Crowdsourcing Game. ACM Conference on Human Factors in Computing Systems (CHI 2011). Vancouver, Canada. (2011).
- C.11 Ido Guy, Sigalit Ur, Inbal Ronen, **Adam Perer**, Michal Jacovi: Do You Want to Know? Recommending Strangers in the Enterprise. ACM Conference of Computer Supported Cooperative Work (CSCW 2011). Hangzhou, China. (2011).
- C.12 Ido Guy, Michal Jacovi, **Adam Perer**, Inbal Ronen and Erel Uziel: Same Places, Same Things, Same People? Mining User Similarity on Social Media. ACM Conference of Computer Supported Cooperative Work (CSCW 2010). Savannah, Georgia, USA. (2010).
- C.13 Frank van Ham and **Adam Perer**: "Search, Show Context, Expand on Demand": Supporting Large Graph Exploration with Degree-of-Interest. IEEE Conference on Information Visualization (Infovis 2009). Atlantic City, New Jersey, USA. (2009).
- C.14 Marc A. Smith, Ben Shneiderman, Natasha Milic-Frayling, Eduarda Rodrigues, Vladimir Barash, Cody Dunne, Tony Capone, **Adam Perer** and Eric Gleave: Analyzing (Social Media) Networks with NodeXL. International Conference on Communities and Technologies (C&T 2009). University Park, Pennsylvania, USA. (2009).
- C.15 **Adam Perer** and Ben Shneiderman. Integrating Statistics and Visualization: Case Studies of Gaining Clarity During Exploratory Data Analysis. ACM Conference on Human Factors in Computing Systems (CHI 2008). Florence, Italy. (2008).
- C.16 **Adam Perer** and Ben Shneiderman. Systematic Yet Flexible Discovery: Guiding Domain Experts Through Exploratory Data Analysis. International Conference on Intelligent User Interfaces (IUI 2008). Gran Canaria, Canary Islands, Spain. (2008).
- C.17 **Adam Perer** and Ben Shneiderman: Balancing Systematic and Flexible Exploration of Social Networks. IEEE Transactions on Visualization and Computer Graphics (InfoVis 2006). 12(5): 693-700. Baltimore, Maryland, USA. (2006).
- C.18 **Adam Perer** and Marc A. Smith: Contrasting portraits of email practices: visual approaches to reflection and analysis. International Conference on Advanced Visual Interfaces (AVI 2006): 389-395. Venice, Italy. (2006)
- C.19 **Adam Perer** and Ben Shneiderman. Improving Interactive Exploration of Social Networks. International Sunbelt Social Network Conference (SUNBELT). Vancouver, Canada (2006).
- C.20 **Adam Perer**: Making sense of social networks. Extended Abstracts of ACM conference on Human factors in computing systems (CHI 2006): 1779-1782. Montreal, Canada (2006).
- C.21 Eric Bier and **Adam Perer**. Icon Abacus: positional display of document attributes. Proceedings of the 5th ACM/IEEE Joint Conference on Digital Libraries (JCDL 2005): 289-290. Denver, Colorado, USA (2005).

WORKSHOP PAPERS (REFEREED)

- W.1 Hendrik Strobel, Sebastian Gehrmann, Michael Behrisch, **Adam Perer**, Hanspeter Pfister, Alexander M. Rush. Debugging Sequence-to-Sequence Models with Seq2Seq-Vis. EMNLP Workshop on the analysis and interpretation of neural networks for Natural Language Processing. Brussels, Belgium. (2018).

- W.2 Josua Krause, **Adam Perer** and Enrico Bertini. A User Study on the Effect of Aggregating Explanations for Interpreting Machine Learning Models. KDD Workshop on Interactive Data Exploration and Analytics (IDEA). London, UK. (2018).
- W.3 **Adam Perer**, Bum Chul Kwon, Janu Verma, Kenney Ng, Ben Eysenbach, Christopher deFilippi, Walter Stewart. Visual Supervision of Unsupervised Clustering of Patients with Clustervision. Machine Learning for Healthcare (MLHC). Boston, MA. (2017)
- W.4 Bum Chul Kwon, Ben Eysenbach, Janu Verma, Kenney Ng, and **Adam Perer**. Interactive Unsupervised Clustering with Clustervision. KDD Workshop on Interactive Data Exploration and Analytics (IDEA). Halifax, Canada. (2017).
- W.5 **Adam Perer**, Bum Chul Kwon, Janu Verma. The Critical Role of Data Mining for Analyzing Real-World Event Sequences. IEEE VIS Workshop on Temporal & Sequential Event Analysis (The Event Event). Baltimore, MD. (2016).
- W.6 Bum Chul Kwon, Janu Verma and **Adam Perer**. Peekquence: Visual Analytics for Event Sequence Data. KDD Workshop on Interactive Data Exploration and Analytics (IDEA). San Francisco, CA. (2016).
- W.7 Josua Krause, **Adam Perer** and Kenney Ng. Interacting with Predictions: Visual Inspection of Black-box Machine Learning Models. KDD Workshop on Interactive Data Exploration and Analytics (IDEA). San Francisco, CA. (2016).
- W.8 Josua Krause, **Adam Perer** and Enrico Bertini. Using Visual Analytics to Interpret Predictive Machine Learning Models. ICML Workshop on Human Interpretability in Machine Learning. New York, NY. (2016).
- W.9 Stein Olav Skrovseth, **Adam Perer**, Conor P. Delaney, Arthur Revhaug, Rolv-Ole Lindsetmo and Knut Magne Augestad. Detecting Novel Associations for Surgical Hospital Readmissions in Large Datasets by Interactive Visual Analytics. AMIA Workshop on Visual Analytics in Healthcare. Washington, DC. (2014).
- W.10 **Adam Perer**. The Value of Integrating Analytics and Visualizations for Understanding Electronic Medical Records: Why, When, and Which?. IEEE VIS Workshop on EHRVis: Visualizing Electronic Health Record Data. Paris, France. (2014).
- W.11 **Adam Perer** and David Gotz. Visualizations to Support Patient-Clinician Communication of Care Plans. ACM CHI 2013 Workshop on Patient-Clinician Communication. Paris, France. (2013).
- W.12 Zhiyuan Zhang, David Gotz and **Adam Perer**. "Interactive Visual Patient Cohort Analysis". Workshop on Visual Analytics in Healthcare. IEEE VisWeek 2012. Seattle, Washington (2012).
- W.13 **Adam Perer**. Healthcare Analytics for Clinical and Non-Clinical Settings. Bridging Clinical and Non-clinical Health Practice Workshop at CHI 2012. Austin, Texas, USA. (2012).
- W.14 **Adam Perer**. The Value of Analyzing Behavior on Multiple Social Mediating Technologies. Social Mediating Technologies: Developing the Research Agenda Workshop at CHI 2009. Boston, Massachusetts, USA. (2009).
- W.15 **Adam Perer**, Ben Shneiderman. Supporting Exploration in Social Data Analysis. Social Data Analysis Workshop at CHI 2008. Florence, Italy. (2008).
- W.16 **Adam Perer**. Analyzing the Networked: Visual Techniques for Understanding the Social Structure of Social Software. Public Practices, Social Software: Examining social practices in networked publics. 3rd Annual Communities and Technologies Conference. East Lansing, Michigan, USA. (2007).
- W.17 **Adam Perer**, Ben Shneiderman. Orderly Analysis of Social Visualizations. Social Visualization Workshop at CHI 2006. Montreal, Canada. (2006).

TUTORIALS

- T.1 Steffen Oeltze-Jafra, Uli Niemann, Jurgen Bernard, **Adam Perer**. Visual Analytics of Medical Cohort Study Data: From Individuals to Populations. IEEE Visualization (VIS 2017). Phoenix, Arizona (2017). <https://projects.iccas.de/dpm/tutorials/IEEEVis2017/>
- T.2 Jesus Caban, David Gotz, **Adam Perer**. Introduction to Visual Analytics in Healthcare. American Medical Informatics Association Annual Symposium (AMIA 2015). San Francisco, California. (2015).

PANELS

- P.1 **Adam Perer**, Fei Sha, Klaus Mueller, Srinivasan Parthasarathy, Tamara Munzner. Exploratory Data Analysis. Workshop on Exploratory Data Analysis. SIAM Conference on Data Mining (SDM 2014). Philadelphia, PA. (2014).
- P.2 **Adam Perer**, David Gotz, Diana MacLean, Yuval Shahar, Ben Shneiderman. Visual Analytics in Healthcare. American Medical Informatics Association Annual Symposium (AMIA 2012). Chicago, Illinois. (2012).

DEMOS, POSTERS, AND CHALLENGES (REFEREED)

- D.1 John Hwong, Pierre Amelot, Kathryn McManus, **Adam Perer**. Exploring Hidden Dimensions of the Rijksmuseum. IEEE VIS Conference. Phoenix, Arizona. (2017).
- D.2 Josua Krause and **Adam Perer**. Data-Driven Cohort Construction with Interactive Visual Queries. Workshop on Visual Analytics in Health Care. IEEE Visual Analytics Science and Technology (VAST). Chicago, Illinois. (2015).
- D.3 **Adam Perer**, Ido Guy. SaNDVis: Visual Social Network Analytics for the Enterprise. ACM Conference of Computer Supported Cooperative Work (CSCW 2012). Seattle, Washington. (2012).
- D.4 **Adam Perer**, Ido Guy, Erel Uziel, Inbal Ronen, Michal Jacovi. Unearthing People from the SaND: Relationship Discovery with Social Media in the Enterprise. AAAI Conference on Weblogs and Social Media (ICWSM 2011). Barcelona, Spain. (2011).
- D.5 **Adam Perer**. Using SocialAction to uncover structure in social networks over time. IEEE Symposium on Visual Analytics Science and Technology (VAST 2008): 213-214. Columbus, Ohio, USA. (2008).
- D.6 **Adam Perer**, Ben Shneiderman. The Global Network of Terrorism: Dynamic Trends from 1969-1997. Competition on Visualizing Network Dynamics: International Workshop and Conference on Network Science. New York Hall of Science, New York, USA. (2007).
- D.7 **Adam Perer**, Ben Shneiderman. Beyond Threads: Identifying Discussions in Email Archives. IEEE Symposium on Information Visualization (InfoVis 2005). Minneapolis, Minnesota, USA. (2005).
- D.8 Eric Bier, **Adam Perer**. Icon Abacus and Ghost Icons. Proceedings of the 5th ACM/IEEE Joint Conference on Digital Libraries (JCDL). Denver, Colorado, USA. (2005).

OTHER PUBLICATIONS

- O.1 **Adam Perer** and Chris Wilson. The Steroids Social Network: An interactive feature on the Mitchell report. Slate Magazine. Dec. 21, 2007. <http://www.slate.com/id/2180392/>
- O.2 Eric Bier and **Adam Perer**. Icon Abacus and Ghost Icons. IEEE Technical Committee on Digital Libraries Bulletin, 2(1). (2005)

PATENTS

- PAT.1 Josua Krause, Kenney Ng, **Adam Perer**. Identifying and Ranking Impactful Risk Factors from Trained Predictive Models. US Patent 20170323075.
- PAT.2 David Gotz, **Adam Perer**, and Fei Wang. Interactive Visual Analysis of Clinical Episodes. US 20150106022. Issued April 16, 2015.
- PAT.3 Jianying Hu, **Adam Perer**, and Fei Wang. System and Methods for Hierarchical Exploration of Longitudinal Medical Events. US Patent 20140257847.
- PAT.4 David Gotz, **Adam Perer**, and Zhiyuan Zhang. Iterative Refinement of Cohorts using Visual Exploration and Data Analytics. US Patent 9104786.
- PAT.5 Eric A. Bier and **Adam Perer**. Systems and Methods for displaying Linked Information in a Sorted Context. Patent 20041652-US-NP-311307.

INVITED TALKS TO ACADEMIA & INDUSTRY

- I.1 April 19, 2018: Human-Centered Data Science: Visual Interfaces for Making Sense of Data. University of Pittsburgh. Pittsburgh, PA.
- I.2 April 11, 2018: Human-Centered Data Science: Visual Interfaces for Making Sense of Data. Carnegie Mellon University. Pittsburgh, PA.
- I.3 January 25, 2018: Data-Driven Healthcare: Visual Analytics for Exploration and Prediction of Clinical Data. Bentley University. Waltham, MA.
- I.4 November 17, 2017: Visual Analytics for Exploration, Prediction, and Clustering of Clinical Data. Big Data Symposium. University of Pittsburgh. Pittsburgh, PA.
- I.5 April 20, 2016: Data-Driven Healthcare: Visual Analytics for Exploration and Prediction of Clinical Data. Big Data Symposium. University of Pittsburgh. Pittsburgh, PA.
- I.6 December 4, 2015: Data-Driven Healthcare: Visual Analytics for Exploration and Prediction of Clinical Data. University of Pittsburgh's Department of Biomedical Informatics Lecture Series. Pittsburgh, PA.
- I.7 September 18, 2015: Data-Driven Healthcare: Visual Analytics for Exploration and Prediction of Clinical Data. Carnegie Mellon University's Human-Computer Interaction Institute Seminar Series. Pittsburgh, PA.
- I.8 April 17, 2015: Visual Analytics for Healthcare. EMBL-EBI Workshop on Electronic Medical Records for Drug Discovery. Hinxton, UK.
- I.9 April 7, 2015: The Role of Visualization in Prediction. OpenVis Conference. Boston, MA.
- I.10 March 17, 2015: Visual Analytics for Healthcare. University of Texas Big Data Symposium. San Antonio, TX.
- I.11 April 25, 2014: Visual Analytics for Data-Driven Medicine. Mid-Atlantic Healthcare Informatics Symposium. Philadelphia, PA.
- I.12 October 2, 2013: CareFlow: Data-Driven Exploration of Care Plans for Patients. Health 2.0. Santa Clara, CA.
- I.13 October 1, 2013: Visual Analytics: Machine Learning + Visualization for Data-Driven Medicine. Health 2.0. Santa Clara, CA.
- I.14 August 17, 2013: Visual Analytics for Data-Driven Medicine. Meaningful Use of Complex Medical Data Symposium. Los Angeles, CA.
- I.15 April 2013: Visual Analytics for Healthcare. BioIT World Conference. Boston, MA.
- I.16 May 23, 2012: Visual Analytics for Tracking Disease Progression in Electronic Health Records. Electronic Health Record Informatics Workshop. University of Maryland. College Park, Maryland.
- I.17 June 24, 2011: Making Sense of Social Networks. Stanford University. Stanford, California.
- I.18 June 23, 2011: Data Visualization and Storytelling. IBM Almaden Research Center. San Jose, California.
- I.19 March 18, 2011: Making Sense of Social Networks. Massachusetts Institute of Technology. Cambridge, Massachusetts.
- I.20 June 7, 2010: Making Sense of (Social) Networks. IBM Research. Cambridge, Massachusetts.
- I.21 March 4, 2010: Making Sense of (Social) Networks. University of Pittsburgh. Pittsburgh, Pennsylvania.
- I.22 May 18, 2009: Improving Exploration of Networks by Integrating Statistics and Visualization. Dagstuhl Seminar on Visualization and Monitoring of Network Traffic. Dagstuhl, Germany.
- I.23 June 27, 2008: Integrating Statistics and Visualizations to Improve Exploratory Data Analysis of Social Networks. Statistical Graphics: Data and Information Visualization in Today's Multimedia Society (DataViz VI). Jacobs University, Bremen, Germany.
- I.24 February 14, 2008: Integrating Statistics and Visualization: Gaining Clarity during Exploratory Data Analysis of Social Networks. Dynamic Network Analysis Seminar Series. University of Maryland, College Park, Maryland.
- I.25 November 12, 2007: Integrating Statistics and Visualization to Gain Clarity During Exploratory Social Network Analysis. Ben-Gurion University of the Negev, Beer Sheva, Israel.

- I.26 November 8, 2007: Integrating Statistics and Visualization to Gain Clarity During Exploratory Social Network Analysis. IBM Research, Haifa, Israel.
- I.27 November 6, 2007: Integrating Statistics and Visualization to Gain Clarity During Exploratory Social Network Analysis. Technion, Haifa, Israel.
- I.28 November 5, 2007: Integrating Statistics and Visualization to Gain Clarity During Exploratory Social Network Analysis. Weizmann Institute of Science, Rehovot, Israel.
- I.29 November 1, 2007: Integrating Statistics and Visualization to Gain Clarity During Exploratory Social Network Analysis. Google, Haifa, Israel.
- I.30 October 10, 2007: Integrating Statistics and Visualization to Gain Clarity During Exploratory Social Network Analysis. Johns Hopkins University Applied Physics Lab, Columbia, Maryland.
- I.31 July 25, 2007: Social Network Analysis for Counter-Terrorism. Tools and Practices of Terrorism Analysis. Booz Allen Hamilton, McLean, Virginia
- I.32 June 1, 2007: Systematic Yet Flexible Visualizations of Social Networks. Helping Users Make Sense of Social Networks Workshop. University of Maryland, College Park, Maryland.
- I.33 May 31, 2007: Systematic Yet Flexible Visualizations of Social Networks. HCIL's 24th Annual Symposium. University of Maryland, College Park, Maryland.
- I.34 May 23, 2007: Social Network Analysis for Counter-Terrorism. 2007 Homeland Security Science & Technology Stakeholders Conference. Washington, DC.
- I.35 May 20, 2007: Balancing Systematic and Flexible Exploration of Social Networks. International Workshop and Conference on Network Science. New York Hall of Science, New York City, New York.
- I.36 April 18, 2007: Improving Interactive Exploration of Social Networks. The USMA/ARI Network Science Workshop, United States Military Academy, West Point, New York.
- I.37 March 2, 2007: Exploratory and Systematic Social Network Analysis Using Novel Visualizations and Interactions. APA Annual Symposium on Applied Experimental Research, George Mason University, Virginia.
- I.38 August 2006: Uses and Values of Email Visualizations: A Case Study with SNARFViews. Microsoft Research. Redmond, Washington.
- I.39 June 1, 2006: Balancing Systematic and Flexible Exploration of Social Networks. HCIL's 23rd Annual Symposium. University of Maryland, College Park, Maryland.
- I.40 June 2, 2005: Using Rhythms of Relationships to Understand Email Archives. Email Archive Visualization Workshop. University of Maryland, College Park, Maryland.
- I.41 June 3, 2005: Understanding the Rhythms of Relationship in Email Archives. HCIL's 22nd Annual Symposium. University of Maryland, College Park, Maryland.
- I.42 August 31, 2004: Approaches for Visualizing Email Archives. USC's Institute for Creative Technologies. Marina del Ray, California.
- I.43 August 2004: Supporting Reading Groups with Instant Bookplex. Palo Alto Research Center (PARC). Palo Alto, California.

INVITED PARTICIPANT

- IP.1 October 2018: Dagstuhl Seminar on Progressive Visual Analytics. Schloss Dagstuhl, Germany.
- IP.2 June 2018: Restructuring IEEE VIS for the Future. Banff International Research Station, Banff, Canada.
- IP.3 March 2012: National Science Foundation Workshop on the Science of Interaction. Austin, Texas.
- IP.4 June 2010: Dagstuhl Seminar on Information Visualization. Schloss Dagstuhl, Germany.
- IP.5 May 2009: Dagstuhl Seminar on Visualization and Monitoring of Network Traffic. Schloss Dagstuhl, Germany.
- IP.6 July 2008: Microsoft Research Faculty Summit. Redmond, Washington.

TEACHING EXPERIENCE

COURSES

- 2018 Introduction to Data Visualization I, Carnegie Mellon University
- 2018 Introduction to Data Visualization II, Carnegie Mellon University
- 2017 Telling Stories with Data, University of Pennsylvania
- 2017 Visualization in HCI, Carnegie Mellon University
- 2017 Guest Lecturer, Computing for Good, Carnegie Mellon University
- 2017 Guest Lecturer, Human Factors, Carnegie Mellon University
- 2017 Guest Lecturer, Telling Stories with Data, Carnegie Mellon University
- 2017 Guest Lecturer, Interactive Data Science, Carnegie Mellon University
- 2013 Guest Lecturer, Information Visualization, New York University
- 2012 Guest Lecturer, Information Technology for Managers, Rutgers University
- 2004 Teaching Assistant, Introduction to Human-Computer Interaction, University of Maryland
- 2003 Teaching Assistant, Organization of Programming Languages, University of Maryland
- 2003 Teaching Assistant, Introduction to Artificial Intelligence, University of Maryland
- 2002 Teaching Assistant, Computer Science I, University of Maryland
- 2000-2002 Teaching Assistant, Elementary Computer Programming, Case Western Reserve University

MENTORING

- 2018 Mentored Dylan Cashman of Tufts as an intern at IBM Research.
- 2018 Mentored Helen Sakharova of MIT as an extern at IBM Research.
- 2016-2018 Dissertation Committee Member of Josua Krause of NYU (Computer Science).
- 2017 Thesis Committee Member of Aprameya Mysore of CMU (Emerging Media).
- 2017 Mentored Ben Eysenbach of MIT as an extern at IBM Research.
- 2017 Mentored Hao Wang of Carnegie Mellon as an independent study.
- 2016 Mentored Benjamin Glicksberg of Mount Sinai as an intern at IBM Research.
- 2014,2015 Mentored Josua Krause of NYU as an intern at IBM Research.
- 2013 Mentored Chad Stolper of Georgia Tech as an intern at IBM Research.
- 2012 Mentored Zhiyuan Zhang of Stony Brook University as an intern at IBM Research.
- 2011 Mentored Jessica Hullman of the University of Michigan as an intern at IBM Research.
- 2009 Mentored Tal Herscovitz and Oded Schumacher of the Technion at IBM Research.
- 2008 Mentored Joonghoon Lee at the University of Maryland.

COMMITTEES & REVIEWING

PANEL MEMBER

- PM.1 National Science Foundation (NSF). Information & Intelligent Systems Division. 2016.
- PM.2 National Science Foundation (NSF). Information & Intelligent Systems Division. 2014.
- PM.3 National Science Foundation (NSF). Information & Intelligent Systems Division. 2013.
- PM.4 National Science Foundation (NSF). Information & Intelligent Systems Division. 2012.

JOURNAL EDITOR

- JE.1 Guest Editor. IEEE Transactions on Big Data, Special Issue on Visualization in Data Science, 2018.
- JE.2 Guest Editor. Big Data Journal, Special Issue on Visualization in Data Science. January 2016.

- JE.3 Guest Editor. Information Visualization Journal, Special Issue on Information Visualization Evaluation, 2013.
- JE.4 Guest Editor. Information Visualization Journal, Special Issue on Information Visualization Evaluation, July 2011.

ORGANIZING COMMITTEE MEMBER (CONFERENCES)

- CC.1 Papers Chair. IEEE Symposium on Visualization in Data Science, October 21, 2018, Berlin, Germany.
- CC.2 Meetups Chair. IEEE VIS 2018, October 21-26, Berlin, Germany.
- CC.3 Papers Chair. IEEE Symposium on Visualization in Data Science, October 1, 2017. Phoenix, Arizona.
- CC.4 Publicity Chair. IEEE VIS 2017, October 1-6, Phoenix, Arizona.
- CC.5 Steering Committee. FDA ADEPT (Advancing the Development of Pediatric Therapeutics) Steering Committee. September 18-19, 2017, Silver Spring, Maryland.
- CC.6 Publicity Chair. IEEE VIS 2014, November 9-14, Paris, France.
- CC.7 Exhibits Chair. IEEE VIS 2013, October 13-18, Atlanta, Georgia.
- CC.8 Exhibits Chair. IEEE VisWeek 2012, October 14-19, Seattle, Washington.
- CC.9 Web Chair. C&C2007, Creativity and Cognition Conference, June 13-15, 2007, Washington, DC.

ORGANIZING COMMITTEE MEMBER (WORKSHOPS)

- WC.1 Organizer. Visualization for AI Explainability. VIS 2018. October, 2018. Berlin, Germany. www.visxai.io
- WC.2 Organizer. Visual Analytics in Healthcare. VIS 2017. October, 2017. Phoenix, Arizona, USA. www.visualanalyticshealthcare.org
- WC.3 Organizer. Visual Analytics in Healthcare. AMIA 2016. November, 2016. Chicago, IL, USA. www.visualanalyticshealthcare.org
- WC.4 Organizer. Big Data, Big Picture – Data Visualization of Health. ICPE 2016. August 26, 2016. Dublin, Ireland.
- WC.5 Organizer. The Event Event: Workshop on Temporal & Sequential Event Analysis. IEEE VIS 2016. October 2016. Baltimore, MD, USA. eventevent.github.io
- WC.6 Organizer. Data Mining for Medical Informatics. AMIA 2015. November 14, 2015. San Francisco, CA, USA. www.dmmh.org/dmmi15
- WC.7 Organizer. Visual Analytics in Healthcare. IEEE Vis 2015. October 25, 2015. Chicago, IL, USA. www.visualanalyticshealthcare.org
- WC.8 Organizer. Visualization for Predictive Analytics. IEEE VIS 2014. November 9, 2014. Paris, France. predictive-workshop.github.io
- WC.9 Organizer. Visual Analytics in Healthcare. AMIA 2014. November 15, 2014. Washington, DC, USA. www.visualanalyticshealthcare.org
- WC.10 Organizer. BELIV'12: Novel Evaluation Methods for Visualization. IEEE VisWeek 2012. October 14-15, 2012. Seattle, Washington, USA. www.beliv.org
- WC.11 Organizer. Telling Stories with Data. VisWeek 2011. October 2011. Providence, Rhode Island, USA.
- WC.12 Organizer. BELIV'10: BEyond time and errors: novel evaluation methods for Information Visualization. CHI 2010. April 10-11, 2010. Atlanta, Georgia, USA. www.beliv.org
- WC.13 Organizer. BELIV'08: BEyond time and errors: novel evaluation methods for Information Visualization. CHI 2008. April 5, 2008. Florence, Italy. www.beliv.org
- WC.14 Organizer. Helping Users Make Sense of Social Networks. University of Maryland. June 2007, College Park, Maryland. www.cs.umd.edu/hcil/sna-workshop/
- WC.15 Organizer. Email Archive Visualization Workshop. University of Maryland, June 2005, College Park, Maryland. www.cs.umd.edu/hcil/emailviz/workshop/
- WC.16 Webmaster. Workshop on Creativity Support Tools, National Science Foundation. June 13-14, 2005, Washington, DC. www.cs.umd.edu/hcil/CST/

PROGRAM COMMITTEE MEMBER

- PC.1 VAST 2018: IEEE Visual Analytics Science and Technology, October 2018, Berlin, Germany.

- PC.2 EuroVis 2018: EuroGraphics/IEEE Symposium on Visualization, June 2018, Brno, Czech Republic.
- PC.3 *Associate Chair*. CHI 2017: ACM CHI Conference on Human Factors in Computing Systems, May 2017, Denver, Colorado.
- PC.4 VAST 2016: IEEE Visual Analytics Science and Technology, October 2016, Baltimore, Maryland.
- PC.5 EuroVis 2016: EuroGraphics/IEEE Symposium on Visualization, June 2016, Groningen, Netherlands.
- PC.6 InfoVis 2015: IEEE Information Visualization Conference, October 2015, Chicago, Illinois.
- PC.7 InfoVis 2014: IEEE Information Visualization Conference, November 2014, Paris, France.
- PC.8 InfoVis 2013: IEEE Information Visualization Conference, October 2013, Atlanta, Georgia.
- PC.9 EuroVis 2013: EuroGraphics/IEEE Symposium on Visualization, June 2013, Leipzig, Germany.
- PC.10 EuroVis 2012: EuroGraphics/IEEE Symposium on Visualization, June 2012, Vienna, Austria.
- PC.11 InfoVis 2011: IEEE Information Visualization Conference, October 2011, Providence, Rhode Island.
- PC.12 EuroVis 2011: EuroGraphics/IEEE Symposium on Visualization, May 2011, Bergen, Norway.
- PC.13 InfoVis 2010: IEEE Information Visualization Conference, October 2010, Salt Lake City, Utah.
- PC.14 InfoVis 2009: IEEE Information Visualization Conference, October 2009, Atlantic City, New Jersey.
- PC.15 ISWC 2009: International Semantic Web Conference, October 2009, Washington, DC.
- PC.16 WWW 2009: International World Wide Web Conference, August 20-24 2009, Madrid, Spain.

WORKSHOP PROGRAM COMMITTEE MEMBER

- WPC.1 IDEA: Interactive Data Exploration and Analytics (IDEA). ACM KDD 2018. August. London, UK. *poloclub.gatech.edu/idea2018/*
- WPC.2 WHI: Workshop on Human Interpretability in Machine Learning. ICML 2018. July. Stockholm, Sweden. *sites.google.com/view/whi2018*
- WPC.3 IDEA: Interactive Data Exploration and Analytics (IDEA). ACM KDD 2017. August. Halifax, Canada. *poloclub.gatech.edu/idea2017/*
- WPC.4 Leveraging Patient-Generated Data for Collaborative Decision Making in Healthcare. PervasiveHealth 2017. May 2017. Barcelona, Spain. *leveragingpgd.ist.psu.edu*
- WPC.5 IDEA: Interactive Data Exploration and Analytics (IDEA). ACM KDD 2015. August. Sydney, Australia. *poloclub.gatech.edu/idea2015/*
- WPC.6 IDEA: Interactive Data Exploration and Analytics (IDEA). ACM KDD 2014. August. New York City, New York, USA. *poloclub.gatech.edu/idea2014/*
- WPC.7 BGM: International Workshop on Big Graph Mining. WWW 2014. April 7, 2014. Seoul, South Korea. *poloclub.gatech.edu/bgm2014/*
- WPC.8 Visual Analytics in Healthcare. AMIA 2013. November 16, 2013. Washington, DC, USA. *www.visualanalyticshealthcare.org*
- WPC.9 IDEA: Interactive Data Exploration and Analytics (IDEA). ACM KDD 2013. August 11. Chicago, Illinois, USA. *poloclub.gatech.edu/idea2013/*
- WPC.10 Visual Analytics in Healthcare: Open Health Data. IEEE VisWeek 2012. October 17, 2012. Seattle, Washington, USA. *www.visualanalyticshealthcare.org*
- WPC.11 SocMedVis: Workshop on Social Media Visualization. ICWSM 2011. Dublin, Ireland.
- WPC.12 NextMail'11: International Workshop on Next Trends in Email, Lyon, France.
- WPC.13 VISSW 2011: International Workshop on Visual interfaces to the Social and Semantic Web, Palo Alto, California.
- WPC.14 VISSW 2010: International Workshop on Visual interfaces to the Social and Semantic Web, Hong Kong, China.

JOURNAL REVIEWER

- JR.1 2017-2011 IEEE Transactions on Visualization and Computer Graphics (TVCG)
- JR.2 2013-2010 Information Visualization Journal (IVS)
- JR.3 2010 ACM Transactions on Intelligent Systems and Technology (TIST)

- JR.4 2009-2007 International Journal of Human-Computer Studies (IJHCS)
- JR.5 2009 IEEE Computer Graphics and Applications (CG&A)
- JR.6 2008 New Review of Hypermedia and Multimedia (NRHM)
- JR.7 2007 International Journal of Human-Computer Interaction (IJHCI)
- JR.8 2005 Journal of Computer-Mediated Communication (JCMC)

CONFERENCE REVIEWER

- CR.1 2017-2008 Conference on Human Factors in Computing Systems (CHI).
- CR.2 2013-2010 Eurographics/IEEE Symposium on Visualization (EuroVis).
- CR.3 2014-2012 IEEE Pacific Visualization Symposium (PacificVis).
- CR.4 2012-2010 International Conference on Intelligent User Interfaces. (IUI)
- CR.5 2012 ACM Advanced Visual Interfaces Conference (AVI).
- CR.6 2012 International Conference on Information Visualization Theory and Applications (IVAPP).
- CR.7 2012-2005 IEEE Information Visualization Conference (InfoVis).
- CR.8 2012-2008 IEEE Symposium on Visual Analytics Science and Technology (VAST).
- CR.9 2011 ACM Conference on Computer Supported Cooperative Work (CSCW)
- CR.10 2009 International Semantic Web Conference (ISWC).
- CR.11 2009 International World Wide Web Conference (WWW).
- CR.12 2007 ACM Creativity and Cognition Conference (C&C).

MEMBERSHIPS

- Founding Member and Secretary of AMIA’s Visual Analytics Working Group (2015-2018).
- Co-chair of IBM Research’s Graphics & Visualization Community. (2010-2013).
- Led Visualization Member of IBM’s CS/Math Research Ph.D. Fellowship Selection Committee. (2010-2013)
- ACM (Association for Computing Machinery)
- Computer Science Department Executive Council, University of Maryland (2004-2008)
- IBM Professional Interest Communities (HCI, Graphics & Visualization)

AWARDS

- Science Accomplishment. IBM Research Division Award for ‘Visual Analytics for Clinical Event Sequences’ (2017).
- Science Accomplishment. IBM Research Division Award for ‘Research Contributions to Watson Health Life Sciences Offerings’ (2017).
- Science Accomplishment. IBM Research Division Award for ‘Patient Similarity Analytics’ (2015).
- Science Accomplishment. IBM Research Division Award for ‘Intelligent Care Delivery and Analytics’ (2013).
- VAST Mini-Challenge Award, IEEE Visual Analytics Science and Technology Challenge (2008)
- Jacob K. Goldhaber Grant, University of Maryland (2008)
- Doctoral Consortium Selection, SIGCHI (2006)
- University of Maryland Graduate Fellowship (Fall 2002 – Spring 2008)
- Case Alumni Scholarship (Fall 1999 – Spring 2002)
- Case Western Reserve Provost Scholarship (Fall 1998 – Spring 2002)
- Sara Goldstein Academic Scholarship (Fall 1998 – Spring 2002)

LANGUAGES

- English

CITIZENSHIP

- USA