ADAM PERER

Human-Computer Interaction Institute
School of Computer Science
Carnegie Mellon University
5000 Forbes Ave, Pittsburgh, PA 15213

adamperer@cmu.edu
http://perer.org
http://dig.cmu.edu
http://hcii.cmu.edu

I study how people engage and make decisions with data; I design new interfaces and visualizations to interact with data; and I assist impactful domains drowning in data. Much of my work also deals with the ubiquity of AI, where I help interpret data masked by complex AI techniques and facilitate human-AI collaboration.

My research philosophy centers around three core strategies to make my advances more impactful. First, I directly embed myself into specific domains to learn the challenges, such as working with physicians in intensive care units and with social workers addressing child maltreatment. Second, I spend significant effort building and deploying real systems to real users. Data analysis and decision-making are often exploratory tasks that are not replicable with controlled experiments, so real systems are necessary to measure impact. Finally, I collaborate with many faculty members in my department and across campus, as I can help them unearth data and algorithms through visualization. Such collaborations allow me to help assist with core contributions to their fields and understand how visualization contributions generalize to broader themes.

EDUCATION

2008	**Ph.D. in Computer Science** | University of Maryland, College Park, MD **Dissertation:** "Integrating Statistics and Visualization to Improve Exploratory Social Network Analysis" **Advisor:** Ben Shneiderman **Committee:** Ben Bederson, Lise Getoor, Jen Golbeck, Alan Neustadtl
2005	**M.S. in Computer Science** | University of Maryland, College Park, MD
2002	**B.S. in Computer Science** | Case Western Reserve University, Cleveland, OH

POSITIONS

2025–	**Associate Professor**	Carnegie Mellon University, Pittsburgh, PA
2023–2025	**Assistant Professor**	Carnegie Mellon University, Pittsburgh, PA
2018–2023	**Assistant Research Professor**	Carnegie Mellon University, Pittsburgh, PA
2011–2018	**Research Scientist**	IBM Research, Yorktown Heights, NY
2016–2018	**Adjunct Professor**	Carnegie Mellon University, Pittsburgh, PA
2017	**Lecturer**	University of Pennsylvania, Philadelphia, PA
2010–2011	**Research Scientist**	IBM Research, Cambridge, MA
2008–2010	**Research Scientist**	IBM Research, Haifa, Israel
2005, 2006	**Research Intern**	Microsoft Research, Redmond, WA
2004	**Research Intern**	Xerox PARC, Palo Alto, CA
2003	**Research Intern**	Institute for Defense Analyses, Alexandria, VA
2002	**Research Intern**	Zaxel Systems, Inc, Pittsburgh, PA
2001	**Research Intern**	TerraSim Inc., Pittsburgh, PA
1999–2000	**Research Intern**	Robotics Institute, CMU, Pittsburgh, PA
1997–1998	**Research Intern**	Department of Physics, CMU, Pittsburgh, PA

PUBLICATIONS

BOOK CHAPTERS

B.2. Jianying Hu, **Adam Perer**, Fei Wang. "Data Driven Analytics for Personalized Healthcare". In: *Healthcare Informatics Management Systems: 4th Edition*. Springer, Sept. 2015.

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J.23. Leeann Chen, Christianna Bartel, Xinlu Cai, Yang Cheng, **Adam Perer**, Sean McClaine, Elizabeth Kairis, Krina Durica, Weiyu Huang, Carissa A Low. "Patient and Provider Perspectives on Symptom Monitoring during Outpatient Chemotherapy: Interview Study". In: *JMIR Formative Research* (2023).

J.22. Will Epperson, Vaishnavi Gorantla, Dominik Moritz, **Adam Perer**. "Dead or Alive: Continuous Data Profiling for Interactive Data Science". In: *IEEE Transactions in Visualization and Computer Graphics* (2023). Presented at IEEE Visualization (VIS). Best Paper Honorable Mention.

J.21. Katelyn Morrison, Mayank Jain, Jessica Hammer, **Adam Perer**. "Eye into AI: Evaluating the Interpretability of Explainable AI Techniques through a Game With a Purpose". In: *ACM on Human-Computer Interaction* (2023). Presented at ACM CSCW.

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J.19. Ángel Alexander Cabrera, Abraham Druck, Jason Hong, **Adam Perer**. "Discovering and Validating AI Errors with Crowd Auditing". In: *ACM on Human-Computer Interaction* (2021). Presented at ACM CSCW.

J.18. Alex Reinhart. "An Open Repository of Real-time COVID-19 Indicators". In: *Proceedings of the National Academy of Sciences of the United States of America* 118.51 (2021).

J.17. Hong Shen, Haojian Jin, Ángel Alexander Cabrera, **Adam Perer**, Haiyi Zhu, Jason I. Hong. "Designing Alternative Representations of Confusion Matrices to Support Non-Expert Public Understanding of Algorithm Performance". In: *ACM on Human-Computer Interaction* (2020). Presented at ACM CSCW.

J.16. Dylan Cashman, **Adam Perer**, Remco Chang, Hendrik Strobelt. "Ablate, Variate, and Contemplate: Visual Analytics for Discovering Neural Architectures". In: *IEEE Transactions in Visualization and Computer Graphics* (2019). Presented at IEEE Visual Analytics Science and Technology (VAST).

J.15. Barbara Han, Subhabrata Majumdar, Flavio Calmon, Benjamin Glicksberg, Raya Horesh, Abhishek Kumar, **Adam Perer**, Elisa Marschall, Dennis Wei, Aleksandra Mojsilović, Kush Varshney. "Confronting data sparsity to identify potential sources of Zika virus spillover infection among primates". In: *Epidemics* (2019).

J.14. Hendrik Strobelt, Sebastian Gehrmann, Michael Behrisch, **Adam Perer**, Hanspeter Pfister, Alexander M. Rush. "Seq2Seq-Vis: A Visual Debugging Tool for Sequence-to-Sequence Models". In: *IEEE Transactions in Visualization and Computer Graphics* (2018). Presented at IEEE Visual Analytics Science and Technology (VAST). Best Paper Honorable Mention.

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J.12. Bum Chul Kwon, Ben Eysenbach, Janu Verma, Kenney Ng, Christopher deFilippi, Walter F. Stewart, **Adam Perer**. "Clustervision: Visual Supervision of Unsupervised Clustering". In: *IEEE Transactions in Visualization and Computer Graphics* (2017). Presented at IEEE Visual Analytics Science and Technology (VAST).

J.11. Josua Krause, **Adam Perer**, Harry Stavropoulous. "Supporting Iterative Cohort Construction with Visual Temporal Queries". In: *IEEE Transactions in Visualization and Computer Graphics* (2015). Presented at IEEE Visual Analytics Science and Technology (VAST).

J.10. **Adam Perer**, Fei Wang, Jianying Hu. "Mining and Exploring Care Pathways from Electronic Medical Records with Visual Analytics". In: *Journal of Biomedical Informatics* (2015).

J.9. David Gotz, Fei Wang, **Adam Perer**. "A Methodology for Interactive Mining and Visual Analysis of Clinical Event Patterns using Electronic Health Records Data". In: *Journal of Biomedical Informatics* (2014).

J.8. Jeffrey Heer, **Adam Perer**. "ORION: A System for Modeling, Transformation and Visualization of Multi-dimensional Heterogeneous Networks". In: *Information Visualization Journal* 13.2 (2014), pp. 111–133.

J.7. Josua Krause, **Adam Perer**, Enrico Bertini. "INFUSE: Interactive Feature Selection for Predictive Modelling of High Dimensional Data". In: *IEEE Transactions in Visualization and Computer Graphics* (2014). Presented at IEEE Visual Analytics Science and Technology (VAST).

J.6. Charles Stolper, **Adam Perer**, David Gotz. "Progressive Visual Analytics: User-Driven Visual Exploration of In-Progress Analytics". In: *IEEE Transactions in Visualization and Computer Graphics* (2014). Presented at IEEE Visual Analytics Science and Technology (VAST).

J.5. 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". In: *Journal of the American Medical Informatics Association* 21.2 (2014), pp. 337–344.

J.4. Zhiyuan Zhang, David Gotz, **Adam Perer**. "Interactive Cohort Analysis and Exploration". In: *Journal of Information Visualization* (2014).

J.3. **Adam Perer**, Ido Guy, Erel Uziel, Inbal Ronen, Michal Jacovi. "The Longitudinal Use of SaNDVis: Visual Social Network Analytics in the Enterprise". In: *IEEE Transactions in Visualization and Computer Graphics* (2013).

J.2. **Adam Perer**, Ben Shneiderman. "Integrating Statistics and Visualization for Exploratory Power: From Long-Term Case Studies to Design Guidelines". In: *IEEE Computer Graphics and Applications* 29.3 (2009). Special Issue on Visual Analytics Evaluation, pp. 39–51.

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C.36. Violet Turri, Katelyn Morrison, Katherine-Marie Robinson, Collin Abidi, Jodi Forlizzi, **Adam Perer**, Rachel Dzombak. "Transparency in the Wild: Navigating Transparency in a Deployed AI System to Broaden Need-Finding Approaches". In: *ACM Conference on Fairness, Accountability, and Transparency (FAccT 2024)*. Rio de Janeiro, Brazil, 2024.

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C.33. Ángel Alexander Cabrera, Erica Fu, Donald Bertucci, Kenneth Holstein, Ameet Talwalkar, Jason I. Hong, **Adam Perer**. "Zeno: An Interactive Framework for Behavioral Evaluation of Machine Learning". In: *ACM Conference on Human Factors in Computing Systems (CHI 2023)*. Hamburg, Germany, 2023.

C.32. Marius Hografer, Dominik Moritz, **Adam Perer**, Hans-Jorg Schulz. "Combining Degree of Interest Functions and Progressive Visualization". In: *IEEE Visualization and Visual Analytics (VIS 2023)*. Melbourne, Australia, 2023.

C.31. Venkatesh Sivaraman, Leigh A. Bukowsi, Joel Levin, Jeremy M. Kahn, **Adam Perer**. "Ignore, Trust, or Negotiate: Understanding Clinician Acceptance of AI-Based Treatment Recommendations in Health Care". In: *ACM Conference on Human Factors in Computing Systems (CHI 2023)*. Hamburg, Germany, 2023.

C.30. Hao-Fei Cheng, Logan Stapleton, Anna Kawakami, Venkatesh Sivaraman, Yanghuidi Cheng, Diana Qing, **Adam Perer**, Kenneth Holstein, Zhiwei Steven Wu, Haiyi Zhu. "How Child Welfare Workers Reduce Racial Disparities in Algorithmic Decisions". In: *ACM Conference on Human Factors in Computing Systems (CHI 2022)*. New Orleans, USA, 2022.

C.29. Will Epperson, Doris Jung-Lin Lee, Leijie Wang, Kunal Agarwal, Aditya Parameswaran, Dominik Moritz, **Adam Perer**. "Leveraging Analysis History for Improved In-Situ Visualization Recommendation". In: *Eurographics Conference on Visualization (EuroVis 2022)*. Rome, Italy, 2022.

C.28. Anna Kawakami, Venkatesh Sivaraman, Hao-Fei Cheng, Logan Stapleton, Yanghuidi Cheng, Diana Qing, **Adam Perer**, Kenneth Holstein, Zhiwei Steven Wu, Haiyi Zhu. "Improving Human-AI Partnerships in Child Welfare: Understanding Worker Practices, Challenges, and Desires for Algorithmic Decision Support". In: *ACM Conference on Human Factors in Computing Systems (CHI 2022)*. Best Paper Honorable Mention. New Orleans, USA, 2022.

C.27. Anna Kawakami, Venkatesh Sivaraman, Logan Stapleton, Hao-Fei Cheng, **Adam Perer**, Zhiwei Steven Wu, Haiyi Zhu, Kenneth Holstein. ""Why Do I Care What's Similar?" Probing Challenges in AI-Assisted Child Welfare Decision-Making through Worker-AI Interface Design Concepts". In: *ACM SIGCHI Conference on Designing Interactive Systems (DIS 2022)*. Virtual. 2022.

C.26. Venkatesh Sivaraman, Yiwei Wu, **Adam Perer**. "Emblaze: Illuminating Machine Learning Representations through Interactive Comparison of Embedding Spaces". In: *ACM Conference on Intelligent User Interfaces (IUI 2022)*. Helsinki, Finland, 2022.

C.25. Laura Beth Fulton, Ja Young Lee, Qian Wang, Zhendong Yuan, Jessica Hammer, **Adam Perer**. "Getting Playful with Explainable AI: Games with a Purpose to Improve Human Understanding of AI". In: *Extended Abstracts of ACM Conference on Human Factors in Computing Systems (CHI 2020)*. Honolulu, HI, 2020.

C.24. Gregory Plumb, Maruan Al-Shedivat, Ángel Alexander Cabrera, **Adam Perer**, Eric Xing, Ameet Talwalkar. "Regularizing Black-box Models for Improved Interpretability". In: *Advances in Neural Information Processing Systems (NeurIPS 2020)*. Vancouver, Canada, 2020.

C.23. Joseph Chee Chang, Nathan Hahn, **Adam Perer**, Aniket Kittur. "SearchLens: Composing and Capturing Complex User Interests for Exploratory Search". In: *ACM Conference on Intelligent User Interfaces (IUI 2019)*. Los Angeles, USA, 2019.

C.22. Luana Micallef, Hans-Jorg Schulz, Marco Angelini, Michael Aupetit, Remco Chang, Jorn Kohlhammer, **Adam Perer**, Giuseppe Santucci. "The Human User in Progressive Visual Analytics". In: *Eurographics Counference on Visualization (EuroVis 2019)*. Porto, Portugal, 2019.

C.21. Josua Krause, **Adam Perer**, Kenney Ng. "Interacting with Predictions: Visual Inspection of Black-box Machine Learning Models". In: *ACM Conference on Human Factors in Computing Systems (CHI 2016)*. San Jose, California, 2016.

C.20. **Adam Perer**, Fei Wang. "Frequence: Interactive Mining and Visualization of Temporal Frequent Event Sequences". In: *ACM Conference on Intelligent User Interfaces (IUI 2014)*. Haifa, Israel, 2014.

C.19. Yiqin Yu, Haifeng Liu, Jing Li, Xiang Li, Jing Mei, Guotong Xie, **Adam Perer**, Fei Wang, Jianying Hu. "Care Pathway Workbench: Evidence Harmonization from Guideline and Data". In: *European Medical Informatics Conference (MIE 2014)*. Istanbul, Turkey, 2014.

C.18. **Adam Perer**, David Gotz. "Data-Driven Exploration of Care Plans for Patients". In: *Extended Abstracts of ACM Conference on Human Factors in Computing Systems (CHI 2013)*. Paris, France, 2013.

C.17. Michael Muller, Kate Ehrlich, Ido Guy, Tara Matthews, **Adam Perer**, Inbal Ronen. "Diversity among Enterprise Online Communities: Collaborating, Teaming, and Innovating through Social Media". In: *ACM Conference on Human Factors in Computing Systems (CHI 2012)*. Austin, Texas, 2012.

C.16. **Adam Perer**, Jimeng Sun. "MatrixFlow: Temporal Network Visual Analytics to Track Symptom Evolution during Disease Progression". In: *American Medical Informatics Association Annual Symposium (AMIA 2012)*. Chicago, Illinois, 2012.

C.15. Ido Guy, **Adam Perer**, Tal Daniel, Ohad Greenshpan, Itai Turbahn. "Guess Who? Enriching the Social Graph through a Crowdsourcing Game". In: *ACM Conference on Human Factors in Computing Systems (CHI 2011)*. Vancouver, Canada, 2011.

C.14. Ido Guy, Sigalit Ur, Inbal Ronen, **Adam Perer**, Michal Jacovi. "Do You Want to Know? Recommending Strangers in the Enterprise". In: *ACM Conference of Computer Supported Cooperative Work (CSCW 2011)*. Hangzhou, China, 2011.

C.13. Jeffrey Heer, **Adam Perer**. "Orion: A System for Modeling, Transformation and Visualization of Multidimensional Heterogeneous Networks". In: *IEEE Conference on Visual Analytics Science and Technology (VAST 2011)*. Providence, Rhode Island, USA, 2011.

C.12. Michal Jacovi, Ido Guy, **Adam Perer**, Inbal Ronen, Erel Uziel, Michael Maslenko. "Digital Traces of Interest: Deriving Interest Relationships from Social Media Interactions". In: *European Conference on Computer-Supported Cooperative Work (ECSCW 2011)*. Aarhus, Denmark, 2011.

C.11. **Adam Perer**, Ido Guy, Erel Uziel, Inbal Ronen, Michal Jacovi. "Visual Social Network Analytics for Relationship Discovery in the Enterprise". In: *IEEE Conference on Visual Analytics Science and Technology (VAST 2011)*. Best Paper Honorable Mention. Providence, Rhode Island, USA, 2011.

C.10. Ido Guy, Michal Jacovi, **Adam Perer**, Inbal Ronen, Erel Uziel. "Same Places, Same Things, Same People? Mining User Similarity on Social Media". In: *ACM Conference of Computer Supported Cooperative Work (CSCW 2010)*. Savannah, Georgia, USA, 2010.

C.9. Frank Ham, **Adam Perer**. ""Search, Show Context, Expand on Demand": Supporting Large Graph Exploration with Degree-of-Interest". In: *IEEE Conference on Information Visualization (InfoVis 2009)*. Atlantic City, New Jersey, USA, 2009.

C.8. Marc A. Smith, Ben Shneiderman, Natasha Milic-Frayling, Eduarda Rodrigues, Vladimir Barash, Cody Dunne, Tony Capone, **Adam Perer**, Eric Gleave. "Analyzing (Social Media) Networks with NodeXL". In: *International Conference on Communities and Technologies (C&T 2009)*. University Park, Pennsylvania, USA, 2009.

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C.3. **Adam Perer**, Ben Shneiderman. "Improving Interactive Exploration of Social Networks". In: *International Sunbelt Social Network Conference (SUNBELT)*. Vancouver, Canada, 2006.

C.2. **Adam Perer**, Marc A. Smith. "Contrasting portraits of email practices: visual approaches to reflection and analysis". In: *International Conference on Advanced Visual Interfaces (AVI 2006)*. Venice, Italy, 2006, pp. 389–395.

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CA.10. Priscilla Correa-Jaque, Yeming Lin, Shili Lin, Yongqi Liu, Charles Fauvel, Rebecca Vanderpool, Manreet Kanwar, Jidapa Kraisangka, **Adam Perer**, Allen D Everett, Samer Alabed, Andew Swift, David G Kiely, Raymond L Benza. "Improvement of Pulmonary Arterial Hypertension (PAH) Risk Assessment Model Using Cardiac Magnetic Resonance Imaging Variables". In: *Circulation* (2023).

CA.9. Charles Fauvel, Shili Lin, Priscilla Correa-Jaque, Allen D Everett, **Adam Perer**, Yongqi Liu, Manreet Kanwar, Rebecca Vanderpool, Jidapa Kraisangka, Raymond Benza. "Comparison of Pulmonary Arterial Hypertension Risk Assessment Tools Using a Harmonized FDA Dataset". In: *Circulation* (2023).

CA.8. Charles Fauvel, Zilu Liu, Shili Lin, Priscilla Correa-Jaque, Amy Webb, Rebecca R Vanderpool, Manreet Kanwar, Jidapa Kraisangka, Puneet Mathur, **Adam Perer**, Allen D Everett, Raymond L Benza. "Comparison between pulmonary arterial hypertension (PAH) risk assessment methods, including pulmonary hypertension outcome risks assessment (PHORA)". In: *CHEST Annual Meeting* (2022).

CA.7. Rebecca Vanderpool, A.M. Janowski, Charles Fauvel, Z. Liu, Shili Lin, Priscilla Correa-Jaque, A. Webb, Manreet Kanwar, Jidapa Kraisangka, Puneet Mathur, **Adam Perer**, Allen D Everett, S.H. Visovatti, Raymond L Benza. "Identification of Novel Right Ventricular Function Phenotypes in Pulmonary Arterial Hypertension Using Unbiased K-Means Clustering". In: *Circulation* (2022).

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WP.12. Josua Krause, **Adam Perer**, Kenney Ng. "Interacting with Predictions: Visual Inspection of Black-box Machine Learning Models". In: *KDD Workshop on Interactive Data Exploration and Analytics (IDEA)*. San Francisco, CA, 2016.

WP.11. Bum Chul Kwon, Janu Verma, **Adam Perer**. "Peekquence: Visual Analytics for Event Sequence Data". In: *KDD Workshop on Interactive Data Exploration and Analytics (IDEA)*. San Francisco, CA, 2016.

WP.10. **Adam Perer**, Bum Chul Kwon, Janu Verma. "The Critical Role of Data Mining for Analyzing Real-World Event Sequences". In: *IEEE VIS Workshop on Temporal & Sequential Event Analysis (The Event Event)*. Baltimore, MD, 2016.

WP.9. **Adam Perer**. "The Value of Integrating Analytics and Visualizations for Understanding Electronic Medical Records: Why, When, and Which?" In: *IEEE VIS Workshop on EHR Vis: Visualizing Electronic Health Record Data*. Paris, France, 2014.

WP.8. Stein Olav Skrovseth, **Adam Perer**, Conor P. Delaney, Arthur Revhaug, Rolv-Ole Lindsetmo, Knut Magne Augestad. "Detecting Novel Associations for Surgical Hospital Readmissions in Large Datasets by Interactive Visual Analytics". In: *AMIA Workshop on Visual Analytics in Healthcare*. Washington, DC, 2014.

WP.7. **Adam Perer**, David Gotz. "Visualizations to Support Patient-Clinician Communication of Care Plans". In: *ACM CHI 2013 Workshop on Patient-Clinician Communication*. Paris, France, 2013.

WP.6. **Adam Perer**. "Healthcare Analytics for Clinical and Non-Clinical Settings". In: *Bridging Clinical and Non-clinical Health Practice Workshop at CHI 2012*. Austin, Texas, USA, 2012.

WP.5. Zhiyuan Zhang, David Gotz, **Adam Perer**. ""Interactive Visual Patient Cohort Analysis"". In: *Workshop on Visual Analytics in Healthcare*. Seattle, Washington, 2012.

WP.4. **Adam Perer**. "The Value of Analyzing Behavior on Multiple Social Mediating Technologies". In: *Social Mediating Technologies: Developing the Research Agenda Workshop at CHI 2009*. Boston, Massachusetts, USA, 2009.

WP.3. **Adam Perer**, Ben Shneiderman. "Supporting Exploration in Social Data Analysis". In: *Social Data Analysis Workshop at CHI 2008*. Florence, Italy, 2008.

WP.2. **Adam Perer**. "Analyzing the Networked: Visual Techniques for Understanding the Social Structure of Social Software". In: *Public Practices, Social Software: Examining social practices in networked publics. 3rd Annual Communities and Technologies Conference*. East Lansing, Michigan, USA, 2007.

WP.1. **Adam Perer**, Ben Shneiderman. "Orderly Analysis of Social Visualizations". In: *Social Visualization Workshop at CHI 2006*. Montreal, Canada, 2006.

TUTORIALS

T.2. **Adam Perer**, Steffen Oeltze-Jafra, Uli Niemann, Jurgen Bernard. "Visual Analytics of Medical Cohort Study Data: From Individuals to Populations". In: *IEEE Visualization (VIS)*. Tutorial. Phoenix, Arizona, 2017.

T.1. **Adam Perer**, Jesus Caban, David Gotz. "Introduction to Visual Analytics in Healthcare". In: *American Medical Informatics Association Annual Symposium (AMIA)*. Tutorial. San Francisco, California, 2015.

PANELS

P.3. **Adam Perer**, Beatriz Sousa Santos, Eytan Adar, Polo Chau, Min Chen, Daniela Oelke. "Visualization for Data Scientists: How specific is it?" In: *Eurographics Conference on Visualization (EuroVis)*. Workshop Organizer. Norrökoping, Sweden, 2020.

P.2. **Adam Perer**, Fei Sha, Klaus Mueller, Srinivasan Parthasarathy, Tamara Munzner. "Exploratory Data Analysis". In: *Workshop on Exploratory Data Analysis, SIAM Conference on Data Mining (SDM)*. Philadelphia, PA, 2014.

P.1. **Adam Perer**, David Gotz, Diana MacLean, Yuval Shahar, Ben Shneiderman. "Visual Analytics in Healthcare". In: *American Medical Informatics Association Annual Symposium (AMIA)*. Chicago, Illinois, 2012.

DEMOS, POSTERS, and CHALLENGES (REFEREED)

D.9. Denis Newman-Griffis, Venkatesh Sivaraman, **Adam Perer**, Eric Fosler-Lussier, Harry Hochheiser. ""TextEssence: A Tool for Interactive Analysis of Semantic Shifts Between Corpora"". In: *NAACL Systems Demonstration*. Mexico City, Mexico, 2021.

D.8. John Hwong, Pierre Amelot, Kathryn McManus, **Adam Perer**. "Exploring Hidden Dimensions of the Rijksmuseum". In: *IEEE VIS Conference*. Phoenix, Arizona, 2017.

D.7. Josua Krause, **Adam Perer**. "Data-Driven Cohort Construction with Interactive Visual Queries". In: *Workshop on Visual Analytics in Health Care. IEEE Visual Analytics Science and Technology (VAST)*. Chicago, Illinois, 2015.

D.6. **Adam Perer**, Ido Guy. "SaNDVis: Visual Social Network Analytics for the Enterprise". In: *ACM Conference of Computer Supported Cooperative Work (CSCW 2012)*. Seattle, Washington, 2012.

D.5. **Adam Perer**, Ido Guy, Erel Uziel, Inbal Ronen, Michal Jacovi. "Unearthing People from the SaND: Relationship Discovery with Social Media in the Enterprise". In: *AAAI Conference on Weblogs and Social Media (ICWSM 2011)*. Barcelona, Spain, 2011.

D.4. **Adam Perer**. "Using SocialAction to uncover structure in social networks over time". In: *IEEE Symposium on Visual Analytics Science and Technology (VAST 2008)*. Columbus, Ohio, USA, 2008, pp. 213–214.

D.3. **Adam Perer**, Ben Shneiderman. "The Global Network of Terrorism: Dynamic Trends from 1969-1997". In: *Competition on Visualizing Network Dynamics: International Workshop and Conference on Network Science*. New York Hall of Science, New York, USA, 2007.

D.2. Eric Bier, **Adam Perer**. "Icon Abacus and Ghost Icons". In: *Proceedings of the 5th ACM/IEEE Joint Conference on Digital Libraries (JCDL)*. Denver, Colorado, USA, 2005.

D.1. **Adam Perer**, Ben Shneiderman. "Beyond Threads: Identifying Discussions in Email Archives". In: *IEEE Symposium on Information Visualization (InfoVis 2005)*. Minneapolis, Minnesota, USA, 2005.

OTHER PUBLICATIONS

OP.2. **Adam Perer**, Chris Wilson. "The Steroids Social Network: An interactive feature on the Mitchell report". In: *Slate Magazine* (Dec. 2007).

OP.1. **Adam Perer**, Eric Bier. "Icon Abacus and Ghost Icons". In: *IEEE Technical Committee on Digital Libraries Bulletin* 2.1 (2005).

PATENTS

PAT.7. Peter Bak, Swapnil Chhabra, Joern Jaskolowski, **Adam Perer**, Avi Yaeli. "Relative Signature Traits of Cohorts". US Patent 10818051. Issued October 27, 2020. 2020.

PAT.6. Avi Yaeli, Peter Bak, **Adam Perer**, Shay Segal. "Systems and Methods for Constructing Clinical Pathways within a GUI". US Patent 10692254. Issued June 23, 2020. 2020.

PAT.5. Josua Krause, Kenney Ng, **Adam Perer**. "Identifying and Ranking Impactful Risk Factors from Trained Predictive Models". US Patent 20170323075. Issued November 9, 2017. 2017.

PAT.4. David Gotz, **Adam Perer**, Fei Wang. "Interactive Visual Analysis of Clinical Episodes". US 20150106022. Issued April 16, 2015. 2015.

PAT.3. David Gotz, **Adam Perer**, Zhiyuan Zhang. "Iterative Refinement of Cohorts using Visual Exploration and Data Analytics". US Patent 9104786. Issued October, 27, 2015. 2015.

PAT.2. Jianying Hu, **Adam Perer**, Fei Wang. "Hierarchical Exploration of Longitudinal Medical Events". US Patent 20140257847. Issued September 11, 2014. 2014.

PAT.1. Eric A. Bier, **Adam Perer**. "Systems and Methods for displaying Linked Information in a Sorted Context". Patent 20041652-US-NP-311307. Issued July 14, 2009. 2009.

GRANTS

2022– **NIH R01 Award** ($657,652)
2023–2025 **Portugal Foundation for Science and Technology** ($50,000)
2023–2024 **DefenseWerx** ($175,000)
2023–2024 **CMU Software Engineering Institute** ($120,000)
2022–2023 **Mozilla** ($50,000)
2022–2023 **Commonwealth of Pennsylvania / Center for Disease Control & Prevention** ($40,000)
2022–2023 **Brookhaven National Lab** ($200,000)
2021–2024 **NSF ISS Award** ($1,000,000)
2020–2022 **Center for Machine Learning and Health** ($113,000)
2020 **Amazon Machine Learning Research Award** ($40,000 + $10,000 cloud)
2020 **NIH Subaward** ($25,000)

2020 **NIH Subaward** ($13,000)
2020 **Google Cloud** ($5000 cloud)
2019–2020 **Block Center for Technology and Society** ($75,000)
2018 **Google Cloud** ($5000 cloud)

INVITED TALKS

03.21.2025 **Enhancing Human-AI Decision-Making with Visualization**
University of Delaware CIS Seminar Series. Newark, DE

02.26.2025 **Enhancing Human-AI Decision-Making with Visualization**
CMU Portugal Academy. Virtual

01.24.2025 **Enhancing Human-AI Decision-Making with Visualization**
Ohio State University Medical Center Biomedical Informatics Seminar Series. Columbus, OH

09.20.2024 **Enhancing Human-AI Decision-Making with Visualization**
University of Minnesota HCC Seminar Series. Minneapolis, MN

04.08.2024 **Aligning Human-AI Decision Making with AI Behaviors**
Human-Centered AI Course. UC Berkeley. Virtual

04.03.2024 **Aligning Human-AI Decision Making with AI Behaviors**
CSIRO (Australia's National Science Agency). Melbourne, Australia. Virtual

12.01.2023 **Visualization for Machine Learning**
Northeastern University. Virtual

02.24.2023 **Intelligent Data Analysis Tools**
Brookhaven National Laboratory. Brookhaven, NY

12.12.2019 **Human-Centered Data Science: Visual Interfaces for Making Sense of Data and Machine Learning**
Google. Pittsburgh, PA

08.07.2019 **Visual Interfaces for Making Sense of Machine Learning Algorithms**
National Robotics Engineering Center. Pittsburgh, PA

04.17.2019 **Data-Driven Healthcare: Visual Analytics for Exploration and Prediction of Clinical Data**
BioIT World 2019. Boston, MA

04.11.2019 **Visual Interfaces for Making Sense of Algorithms**
Workshop on the Future of Human-Computer Interaction. Virginia Tech, Blacksburg, VA. Keynote

04.19.2018 **Human-Centered Data Science: Visual Interfaces for Making Sense of Data**
University of Pittsburgh. Pittsburgh, PA

04.11.2018 **Human-Centered Data Science: Visual Interfaces for Making Sense of Data**
Carnegie Mellon University. Pittsburgh, PA

01.25.2018 **Data-Driven Healthcare: Visual Analytics for Exploration and Prediction of Clinical Data**
Bentley University. Waltham, MA

11.17.2017 **Visual Analytics for Exploration, Prediction, and Clustering of Clinical Data**
Big Data Symposium. University of Pittsburgh. Pittsburgh, PA

04.20.2016 **Data-Driven Healthcare: Visual Analytics for Exploration and Prediction of Clinical Data**
Big Data Symposium. University of Pittsburgh. Pittsburgh, PA

12.04.2015 **Data-Driven Healthcare: Visual Analytics for Exploration and Prediction of Clinical Data**
University of Pittsburgh's Department of Biomedical Informatics Lecture Series. Pittsburgh, PA

09.18.2015 **Data-Driven Healthcare: Visual Analytics for Exploration and Prediction of Clinical Data**
Carnegie Mellon University's Human-Computer Interaction Institute Seminar Series. Pittsburgh, PA

04.17.2015 **Visual Analytics for Healthcare**
EMBL-EBI Workshop on Electronic Medical Records for Drug Discovery. Hinxton, UK

04.07.2015 **The Role of Visualization in Prediction**
OpenVis Conference. Boston, MA

03.17.2015 **Visual Analytics for Healthcare**
University of Texas Big Data Symposium. San Antonio, TX

04.25.2014 **Visual Analytics for Data-Driven Medicine**
Mid-Atlantic Healthcare Informatics Symposium. Philadelphia, PA

10.02.2013 **CareFlow: Data-Driven Exploration of Care Plans for Patients**
Health 2.0. Santa Clara, CA

10.01.2013 **Visual Analytics: Machine Learning + Visualization for Data-Driven Medicine**
Health 2.0. Santa Clara, CA

08.17.2013 **Visual Analytics for Data-Driven Medicine**
Meaningful Use of Complex Medical Data Symposium. Los Angeles, CA

04.10.2013 **Visual Analytics for Healthcare**
BioIT World Conference. Boston, MA

05.23.2012 **Visual Analytics for Tracking Disease Progression in Electronic Health Records**
Electronic Health Record Informatics Workshop. University of Maryland. College Park, Maryland

06.24.2011 **Making Sense of Social Networks**
Stanford University. Stanford, California

06.23.2011 **Data Visualization and Storytelling**
IBM Almaden Research Center. San Jose, California

03.18.2011 **Making Sense of Social Networks**
Massachusetts Institute of Technology. Cambridge, Massachusetts

06.07.2010 **Making Sense of (Social) Networks**
IBM Research. Cambridge, Massachusetts

03.04.2010 **Making Sense of (Social) Networks**
University of Pittsburgh. Pittsburgh, Pennsylvania

05.18.2009 **Improving Exploration of Networks by Integrating Statistics and Visualization**
Dagstuhl Seminar on Visualization and Monitoring of Network Traffic. Dagstuhl, Germany

06.27.2008 **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

02.14.2008 **Integrating Statistics and Visualization: Gaining Clarity during Exploratory Data Analysis of Social Networks**
Dynamic Network Analysis Seminar Series. University of Maryland, College Park, Maryland

11.12.2007 **Integrating Statistics and Visualization to Gain Clarity During Exploratory Social Network Analysis**
Ben-Gurion University of the Negev, Beer Sheva, Israel

11.08.2007 **Integrating Statistics and Visualization to Gain Clarity During Exploratory Social Network Analysis**
IBM Research, Haifa, Israel

11.06.2007 **Integrating Statistics and Visualization to Gain Clarity During Exploratory Social Network Analysis**
Technion, Haifa, Israel

11.05.2007 **Integrating Statistics and Visualization to Gain Clarity During Exploratory Social Network Analysis**
Weizmann Institute of Science, Rehovot, Israel

11.01.2007 **Integrating Statistics and Visualization to Gain Clarity During Exploratory Social Network Analysis**
Google, Haifa, Israel

10.10.2007 **Integrating Statistics and Visualization to Gain Clarity During Exploratory Social Network Analysis**
Johns Hopkins University Applied Physics Lab, Columbia, Maryland

07.25.2007 **Social Network Analysis for Counter-Terrorism**
Tools and Practices of Terrorism Analysis. Booz Allen Hamilton, McLean, Virginia

06.01.2007 **Systematic Yet Flexible Visualizations of Social Networks**
Helping Users Make Sense of Social Networks Workshop. University of Maryland, College Park, Maryland

05.31.2007 **Systematic Yet Flexible Visualizations of Social Networks**
HCIL's 24th Annual Symposium. University of Maryland, College Park, Maryland

05.23.2007 **Social Network Analysis for Counter-Terrorism**
2007 Homeland Security Science & Technology Stakeholders Conference. Washington, DC

05.20.2007 **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

04.18.2007 **Improving Interactive Exploration of Social Networks**
The USMA/ARI Network Science Workshop, United States Military Academy, West Point, New York

03.02.2007 **Exploratory and Systematic Social Network Analysis Using Novel Visualizations and Interactions**
APA Annual Symposium on Applied Experimental Research, George Mason University, Virginia

08.18.2006 **Uses and Values of Email Visualizations: A Case Study with SNARFViews**
Microsoft Research. Redmond, Washington

06.01.2006 **Balancing Systematic and Flexible Exploration of Social Networks**
HCIL's 23rd Annual Symposium. University of Maryland, College Park, Maryland

06.02.2005 **Using Rhythms of Relationships to Understand Email Archives**
Email Archive Visualization Workshop. University of Maryland, College Park, Maryland

06.03.2005 **Understanding the Rhythms of Relationship in Email Archives**
HCIL's 22nd Annual Symposium. University of Maryland, College Park, Maryland

08.31.2004 **Approaches for Visualizing Email Archives**
USC's Institute for Creative Technologies. Marina del Ray, California

08.20.2004 **Supporting Reading Groups with Instant Bookplex**
Palo Alto Research Center (PARC). Palo Alto, California

INVITED PARTICIPANT

2022 **Dagstuhl Seminar on Interactive Visualization for Fostering Trust in ML**
Schloss Dagstuhl, Germany

2018 **Dagstuhl Seminar on Progressive Visual Analytics**
Schloss Dagstuhl, Germany

2018 **Restructuring IEEE VIS for the Future**
Banff International Research Station, Banff, Canada

2012 **National Science Foundation Workshop on the Science of Interaction**
Austin, Texas

2010 **Dagstuhl Seminar on Information Visualization**
Schloss Dagstuhl, Germany

2009 **Dagstuhl Seminar on Visualization and Monitoring of Network Traffic**
Schloss Dagstuhl, Germany

2008 **Microsoft Research Faculty Summit**
Redmond, Washington

TEACHING EXPERIENCE

COURSES

S2017, S2018, F2019, F2021, F2024 **Data Visualization**, HCII, Carnegie Mellon University
Designed and developed the first-ever offering of Data Visualization courses in HCII. In this course, students learned the fundamentals of perception, the theory of visualization, good design practices for visualization, and the development of interactive web-based visualizations. For their final projects, students collected and curated data about which they are passionate, and then designed and deployed interactive visualizations that communicate effective insights. Previously offered as *Visualization in HCI* and *Data Visualization I and II*.

F2018, F2020, F2022, F2023, S2021, S2022, S2025, F2025 **Interactive Data Science**, HCII, Carnegie Mellon University
Revamped this MCDS-required course to focus on human-centered data science by increasing coverage of data visualization, and adding lectures on ethics, uncertainty, fairness, and interpretability. For their final projects, students could choose from 3 different tracks (model, application, or narrative) when building interactive tools with real-world data.

S2023 **HCI for Product Managers**, HCII, Carnegie Mellon University
An MSPM-required course to teach the fundamentals of human-computer interaction compressed into a half-semester course.

S2019, S2023 **Data Science for Product Managers**, HCII, Carnegie Mellon University
An MSPM-required course to teach the fundamentals of data science and visualization compressed into a half-semester course.

S2019 **Interpretable Machine Learning**, HCII, Carnegie Mellon University
Designed a seminar class to discuss recent research on interpretability techniques that are human-centered and aim to help people understand the machine learning models and their implications.

F2017 **Telling Stories with Data**, University of Pennsylvania
Designed and taught the first-ever offering of this required capstone course in the School of Social Policy and Practice. The non-technical course provided hands-on experience in the process of data communication, from initial data analysis to identifying appropriate visualization techniques to crafting informative visualizations.

TEACHING ASSISTANT

2004 Introduction to Human-Computer Interaction, University of Maryland

2003 Organization of Programming Languages, University of Maryland

2003 Introduction to Artificial Intelligence, University of Maryland

2002 Computer Science I, University of Maryland

2000–2002 Elementary Computer Programming, Case Western Reserve University

SUPERVISION

SUPERVISION AT CMU

Ph.D Students

2024– **Advisor**, Arpit Mathur

2021– **Advisor**, Katelyn Morrison

2020– **Advisor**, William Epperson (with Dominik Moritz)

2020– **Advisor**, Venkatesh Sivaraman

2019–2024 **Advisor**, Ángel Alexander Cabrera (with Jason Hong)

2019–2021 **Advisor**, Sachin Grover

2018–2019 **Advisor**, Sung-A Jang (with John Zimmerman)

2024– **Doctoral Committee Member**, Angela Chen (Robotics)

2023– **Doctoral Committee Member**, Catalina Vajiac (Computer Science)

2022–2023 **Doctoral Committee Member**, Joon Sik Kim (Machine Learning)

2022–2023 **Doctoral Committee Member**, Alexandria Vail (HCI)

2018–2020 **Doctoral Committee Member**, Nathan Hahn (HCI)

2018–2020 **Doctoral Committee Member**, Joseph Chee Chang (Language Technologies)

Masters Students

2024–2025 **Masters Advisor**, Unn Seo (Grace) Park (Computer Science)

2021–2022 **Masters Advisor**, Umaymah Imran (Computer Science)

2021 **Masters Advisor**, Mayank Jain (Computer Science)

2020–2021 **Masters Advisor**, Zhendong Yuan (Computer Science)

2019 **Masters Thesis Committee Member**, Zhuoni Yang of CMU (Sustainable Design)

2017 **Masters Thesis Committee Member**, Aprameya Mysore of CMU (Emerging Media)

SUPERVISION AT EXTERNAL INSTITUTIONS

2025 **Host, Visiting Ph.D. Student**, Rui Sheng, HKUST (Computer Science)

2024 **Host, Visiting Masters Student**, Yanwei Huang, Zhejiang University (Computer Science)

2024 **Host, Visiting Masters Student**, Tom Wartmann, ETH Zurich (Computer Science)

2023–2025 **Doctoral Committee Member**, Yongsu Ahn of University of Pittsburgh (Computer Science)

2023 **Host, Visiting Researcher**, Youli Chang, Seoul National University (Computer Science)

2021 **Host, Visiting PhD Student**, Marius Hogräfer, Aarhus University (Computer Science)

2020 **Host, Visiting PhD Student**, Youli Chang, Seoul National University (Computer Science)

2019–2020 **Doctoral Committee Member**, Vincent Raveneau of Universite de Nantes (Computer Science)

2016–2018 **Doctoral Committee Member**, Josua Krause of New York University (Computer Science)

INDEPENDENT STUDY

Masters Students

2025 **Ray Xia** (MHCI) – *AI-Based Clinical Decision Support Tools*

2023 **Tianqi Wu** (MSCS) – *Slice-finding for machine-learning evaluation*

2021 **Monica Chang** (MHCI) – *Remote Caregiver Technologies*

2021 **Andy Wilbourn** (MHCI) – *Remote Caregiver Technologies*

2021 **Nathan Jen** (MHCI) – *Human-AI Collaboration in Radiology*

2020 **Jiachen Gong** (METALS) – *Explaining AI with Games*

2019–2020 **Laura Fulton** (MHCI) – *Explaining AI with Games*

2019 **Shivang Gupta** (METALS) – *Interpretable Machine Learning of Neural Networks*

2019 **Qian Wang** (MHCI) – *A Platform for Measuring Human Interpretability with Data Visualization*

2019 **Ja Young Lee** (MHCI) – *A Platform for Measuring Human Interpretability with Data Visualization*

2017 **Hao Wang** (Emerging Media) – *Data Visualization for Yelp Reviews*

Undergraduates

2024–2025 **Eli Slothower** (Computer Science) – *Generative AI Biases*

2024–2025 **Jackson Ma** (Computer Science) – *Time Series Modeling for Healthcare*

2024 **Yuxiang Wang** (Information Systems) – *Geographical Network Visualization*

2023 **Yejun Kwak** (Information Systems) – *Opioid Risk Prediction*

2022 **Emily Guo** (Computer Science) – *Prototyping AI Systems*

2020–2021 **Kazi Jawad** (Statistics and Machine Learning) – *Explaining AI with Games*

2020 **Ruhan Prasad** (Computer Science) – *COVID-19 Data Visualization*

2020 **Justine Cho** (Computer Science) – *Explaining AI with Games*

2019 **Yeju Ahn** (Statistics and Machine Learning) – *Conversational Data Analysis*

NSF RESEARCH EXPERIENCES FOR UNDERGRADUATES (REU)

2025 **Jessica Tong**, Pomona College (Computer Science)

2024 **Jordan Wheeler**, Carthage College (Computer Science)

2022 **Donald Bertucci**, Oregon State University (Computer Science)

2019 **Olivia Zhang**, Harvard (Applied Mathematics)

INTERNS AT IBM RESEARCH

2018 **Dylan Cashman** of Tufts (now faculty at Brandeis)

2018 **Helen Sakharova** of MIT (now graduate student at Berkeley)

2017 **Ben Eysenbach** of MIT (now faculty at Princeton)

2016 **Benjamin Glicksberg** of Mount Sinai (now Assistant Professor at Mount Sinai)

2014–2015 **Josua Krause** of NYU (now VP of Data Science at Accern)

2013 **Chad Stolper** of Georgia Tech (now at Google)

2012 **Zhiyuan Zhang** of Stony Brook University (now at Facebook Research)

2011 **Jessica Hullman** of University of Michigan (now Associate Professor at Northwestern)

2009 **Tal Herscovitz and Oded Schumacher** of the Technion Israel Institute of Technology

SERVICE

PANEL MEMBER

2025 **National Science Foundation (NSF)**. Information & Intelligent Systems Division.

2022 **National Science Foundation (NSF)**. Information & Intelligent Systems Division.

2018 **National Science Foundation (NSF)**. Information & Intelligent Systems Division.

2016 **National Science Foundation (NSF)**. Information & Intelligent Systems Division.

2014 **National Science Foundation (NSF)**. Information & Intelligent Systems Division.

2013 **National Science Foundation (NSF)**. Information & Intelligent Systems Division.

2012 **National Science Foundation (NSF)**. Information & Intelligent Systems Division.

JOURNAL EDITOR

2019 **Guest Editor**. IEEE Computer Graphics & Applications, Special Issue on Visualization in Data Science.

2018 **Guest Editor**. IEEE Transactions on Big Data, Special Issue on Visualization in Data Science.

2016 **Guest Editor**. Big Data Journal, Special Issue on Visualization in Data Science. January 2016.

2013 **Guest Editor**. Information Visualization Journal, Special Issue on Information Visualization Evaluation.

2011 **Guest Editor**. Information Visualization Journal, Special Issue on Information Visualization Evaluation, July 2011.

ORGANIZING COMMITTEE MEMBER (CONFERENCES)

2025 **Subcommittee Chair (Visualization)**. ACM CHI 2025. Yokohama, Japan.

2024 **Area Papers Chair**. IEEE VIS 2024, October 2024. Tampa, Florida.

2024 **Subcommittee Chair (Visualization)**. ACM CHI 2024. Honolulu, Hawaii.

2023 **Area Papers Chair**. IEEE VIS 2023, October 2023. Melbourne, Australia.

2022 **Posters Chair**. IEEE VIS 2022, October 2022. Oklahoma City, Oklahoma.

2021 **General Chair**. IEEE Symposium on Visualization in Data Science, October 2021, New Orleans, Louisiana.

2021 **Posters Chair**. IEEE VIS 2021, New Orleans, Louisiana.

2020 **General Chair**. IEEE Symposium on Visualization in Data Science, October 2020, Salt Lake City, Utah.

2020 **Workshops Chair**. IEEE VIS 2020, Salt Lake City, Utah.

2019 **General Chair**. IEEE Symposium on Visualization in Data Science, October 21, 2019, Vancouver.

2019 **Workshops Chair**. IEEE VIS 2019, October 20-25, Vancouver, Canada.

2018 **Papers Chair**. IEEE Symposium on Visualization in Data Science, October 21, 2018, Berlin, Germany.

2018 **Meetups Chair**. IEEE VIS 2018, October 21-26, Berlin, Germany.

2017 **Papers Chair**. IEEE Symposium on Visualization in Data Science, October 1, 2017. Phoenix, Arizona.

2017 **Publicity Chair**. IEEE VIS 2017, October 1-6, Phoenix, Arizona.

2017 **Steering Committee**. FDA ADEPT (Advancing the Development of Pediatric Therapeutics) Steering Committee. September 18-19, 2017, Silver Spring, Maryland.

2014 **Publicity Chair**. IEEE VIS 2014, November 9-14, Paris, France.

2013 **Exhibits Chair**. IEEE VIS 2013, October 13-18, Atlanta, Georgia.

2012 **Exhibits Chair**. IEEE VisWeek 2012, October 14-19, Seattle, Washington.

2007 **Web Chair**. C&C2007, Creativity and Cognition Conference, June 13-15, 2007, Washington, DC.

ORGANIZING COMMITTEE MEMBER (WORKSHOPS)

2022 **Organizer**. Visualization for AI Explainability. VIS 2022. October, 2022. Oklahoma City, Oklahoma. www.visxai.io

2021 **Organizer**. Visualization for AI Explainability. VIS 2021. October, 2021. New Orleans, Louisiana. www.visxai.io

2020 **Organizer**. Visualization for AI Explainability. VIS 2020. October, 2020. Salt Lake City, Utah. www.visxai.io

2019 **Organizer**. Visualization for AI Explainability. VIS 2019. October, 2019. Vancouver, Canada. www.visxai.io

2018 **Organizer**. Visualization for AI Explainability. VIS 2018. October, 2018. Berlin, Germany. www.visxai.io

2018 **Steering Committee**. BELIV'18: Evaluation and Beyond - Methodological Approaches for Visualization. Berlin, Germany.

www.beliv.org

2017 **Organizer**. Visual Analytics in Healthcare. VIS 2017. October, 2017. Phoenix, Arizona, USA.
www.visualanalyticshealthcare.org

2016 **Organizer**. Visual Analytics in Healthcare. AMIA 2016. November, 2016. Chicago, IL, USA.
www.visualanalyticshealthcare.org

2016 **Organizer**. Big Data, Big Picture – Data Visualization of Health. ICPE 2016. August 26, 2016. Dublin, Ireland.

2016 **Organizer**. The Event Event: Workshop on Temporal & Sequential Event Analysis. IEEE VIS 2016. October 2016. Baltimore, MD, USA.
eventevent.github.io

2015 **Organizer**. Data Mining for Medical Informatics. AMIA 2015. November 14, 2015. San Francisco, CA, USA.
www.dmmh.org/dmmi15

2015 **Organizer**. Visual Analytics in Healthcare. IEEE Vis 2015. October 25, 2015. Chicago, IL, USA.
www.visualanalyticshealthcare.org

2014 **Organizer**. Visualization for Predictive Analytics. IEEE VIS 2014. November 9, 2014. Paris, France.
predictive-workshop.github.io

2014 **Organizer**. Visual Analytics in Healthcare. AMIA 2014. November 15, 2014. Washington, DC, USA.
www.visualanalyticshealthcare.org

2012 **Organizer**. BELIV'12: Novel Evaluation Methods for Visualization. IEEE VisWeek 2012. October 14-15, 2012. Seattle, Washington, USA.
www.beliv.org

2011 **Organizer**. Telling Stories with Data. VisWeek 2011. October 2011. Providence, Rhode Island, USA.

2010 **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

2008 **Organizer**. BELIV'08: BEyond time and errors: novel evaLuation methods for Information Visualization. CHI 2008. April 5, 2008. Florence, Italy.
www.beliv.org

2007 **Organizer**. Helping Users Make Sense of Social Networks. University of Maryland. June 2007, College Park, Maryland.
www.cs.umd.edu/hcil/sna-workshop/

2005 **Organizer**. Email Archive Visualization Workshop. University of Maryland, June 2005, College Park, Maryland.
www.cs.umd.edu/hcil/emailviz/workshop/

2005 **Webmaster**. Workshop on Creativity Support Tools, National Science Foundation. June 13-14, 2005, Washington, DC.
www.cs.umd.edu/hcil/CST/

PROGRAM COMMITTEE MEMBER

2023 **Associate Chair**. CHI 2023: ACM CHI Conference on Human Factors in Computing Systems, April 2023, Hamburg, Germany.

2022

Associate Chair. CHI 2022: ACM CHI Conference on Human Factors in Computing Systems, May 2022, New Orleans, USA.

2021 **Associate Chair**. CHI 2021: ACM CHI Conference on Human Factors in Computing Systems, May 2021, Toyko, Japan.

2019 InfoVis 2019: IEEE Information Visualization Conference, October 2019, Vancouver, Canada.

2019 **Senior Program Committee**. ACM Intelligent User Interfaces Conference, March 2019, Los Angeles, California.

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

2018 EuroVis 2018: EuroGraphics/IEEE Symposium on Visualization, June 2018, Brno, Czech Republic.

2017 **Associate Chair**. CHI 2017: ACM CHI Conference on Human Factors in Computing Systems, May 2017, Denver, Colorado.

2016 VAST 2016: IEEE Visual Analytics Science and Technology, October 2016, Baltimore, Maryland.

2016 EuroVis 2016: EuroGraphics/IEEE Symposium on Visualization, June 2016, Groningen, Netherlands.

2015 InfoVis 2015: IEEE Information Visualization Conference, October 2015, Chicago, Illinois.

2014 InfoVis 2014: IEEE Information Visualization Conference, November 2014, Paris, France.

2013 InfoVis 2013: IEEE Information Visualization Conference, October 2013, Atlanta, Georgia.

2013 EuroVis 2013: EuroGraphics/IEEE Symposium on Visualization, June 2013, Leipzig, Germany.

2012 EuroVis 2012: EuroGraphics/IEEE Symposium on Visualization, June 2012, Vienna, Austria.

2011 InfoVis 2011: IEEE Information Visualization Conference, October 2011, Providence, Rhode Island.

2011 EuroVis 2011: EuroGraphics/IEEE Symposium on Visualization, May 2011, Bergen, Norway.

2010 InfoVis 2010: IEEE Information Visualization Conference, October 2010, Salt Lake City, Utah.

2009 InfoVis 2009: IEEE Information Visualization Conference, October 2009, Atlantic City, New Jersey.

2009 ISWC 2009: International Semantic Web Conference, October 2009, Washington, DC.

2009 WWW 2009: International World Wide Web Conference, August 20-24 2009, Madrid, Spain.

WORKSHOP PROGRAM COMMITTEE MEMBER

2022 **AMAI**: Workshop on Applications of Medical AI. MICCAI 2022. September. Singapore.

2021 **iMIMIC**: Workshop on Interpretability of Machine Intelligence in Medical Image Computing. MICCAI 2021. September. Strasbourg, France.

2018 **IDEA**: Interactive Data Exploration and Analytics (IDEA). ACM KDD 2018. August. London, UK.

2018 **WHI**: Workshop on Human Interpretability in Machine Learning. ICML 2018. July. Stockholm, Sweden.

2017 **IDEA**: Interactive Data Exploration and Analytics (IDEA). ACM KDD 2017. August. Halifax, Canada.

2017 Leveraging Patient-Generated Data for Collaborative Decision Making in Healthcare. PervasiveHealth 2017. May 2017. Barcelona, Spain.

2015 **IDEA**: Interactive Data Exploration and Analytics (IDEA). ACM KDD 2015. August. Sydney, Australia.

2014

IDEA: Interactive Data Exploration and Analytics (IDEA). ACM KDD 2014. August. New York City, New York, USA.

2014 **BGM**: International Workshop on Big Graph Mining. WWW 2014. April 7, 2014. Seoul, South Korea.

2013 Visual Analytics in Healthcare. AMIA 2013. November 16, 2013. Washington, DC, USA.

2013 **IDEA**: Interactive Data Exploration and Analytics (IDEA). ACM KDD 2013. August 11. Chicago, Illinois, USA.

2012 Visual Analytics in Healthcare: Open Health Data. IEEE VisWeek 2012. October 17, 2012. Seattle, Washington, USA.

2011 **SocMedVis**: Workshop on Social Media Visualization. ICWSM 2011. Dublin, Ireland.

2011 **NextMail'11**: International Workshop on Next Trends in Email, Lyon, France.

2011 **VISSW 2011**: International Workshop on Visual interfaces to the Social and Semantic Web, Palo Alto, California.

2010 **VISSW 2010**: International Workshop on Visual interfaces to the Social and Semantic Web, Hong Kong, China.

JOURNAL REVIEWER

ACM Transactions on Computer-Human Interaction (TOCHI), Computer Graphics Forum (CGF), IEEE Transactions on Visualization and Computer Graphics (TVCG), Information Visualization Journal (IVS), ACM Transactions on Intelligent Systems and Technology (TIST), International Journal of Human-Computer Studies (IJHCS), IEEE Computer Graphics and Applications (CG&A), New Review of Hypermedia and Multimedia (NRHM), International Journal of Human-Computer Interaction (IJHCI), Journal of Computer-Mediated Communication (JCMC)

CONFERENCE REVIEWER

ACM Conference on Human Factors in Computing Systems (CHI), IEEE Conference on Information Visualization (InfoVis), IEEE Conference on Visual Analytics (VAST) International Conference on Intelligent User Interfaces. (IUI), Eurographics Symposium on Visualization (EuroVis), IEEE Pacific Visualization Symposium (PacificVis), ACM Advanced Visual Interfaces Conference (AVI), International Conference on Information Visualization Theory and Applications (IVAPP), ACM Conference on Computer Supported Cooperative Work (CSCW), International Semantic Web Conference (ISWC), International World Wide Web Conference (WWW), ACM Creativity and Cognition Conference (C&C).

CMU SERVICE

2024–2025 Hiring Committee, HCI Institute

2024–2025 REU Committee, HCI Institute

2023–2024 Social Committee, HCI Institute

2023–2024 Admissions Committee, HCI Institute's MHCI Program

2022–2025 Admissions Committee, HCI Institute's REU Program

2022–2023 Admissions Committee, HCI Institute's BHCI Program

2019 Admissions Committee, HCI Institute's PhD Program

CONSULTING

2020–2024 Blue Spark Technologies (Advisory Board)

2020–2021 Janssen Pharmaceutical Companies of Johnson & Johnson

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)
- Computer Science Department Executive Council, University of Maryland (2004-2008)

AWARDS

2023 **Best Paper Honorable Mention. IEEE VIS 2023.** "Dead or Alive: Continuous Data Profiling for Interactive Data Science".

2022 **Best Paper Honorable Mention. ACM CHI 2022.** "Improving Human-AI Partnerships in Child Welfare: Understanding Worker Practices, Challenges, and Desires for Algorithmic Decision Support".

2018 **Best Paper Honorable Mention. IEEE VAST 2018.** "Seq2Seq-Vis: A Visual Debugging Tool for Sequence-to-Sequence Models".

2017 **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'

2015 **Science Accomplishment.** IBM Research Division Award for 'Patient Similarity Analytics'

2013 **Science Accomplishment.** IBM Research Division Award for 'Intelligent Care Delivery and Analytics'

2011 **Best Paper Honorable Mention. IEEE VAST 2011.** "Visual Social Network Analytics for Relationship Discovery in the Enterprise"

2008 **VAST Mini-Challenge Award**, IEEE Visual Analytics Science and Technology Challenge

2008 **Jacob K. Goldhaber Grant**, University of Maryland

2006 **Doctoral Consortium Selection**, SIGCHI

2002–2008 **University of Maryland Graduate Fellowship**

1999–2002 **Case Alumni Scholarship**

1998–2002 **Case Western Reserve Provost Scholarship**

1998–2002 **Sara Goldstein Academic Scholarship**