







<div>CONTACT</div> <div>mb@mattbrehmer.ca +1-206-665-9232 ✉ mattbrehmer.ca @mattbrehmer in matthewbrehmer 🔊 mattbrehmer 📺 mattbrehmer 📺 ubix.substack</div>		<p>I am a human-computer interaction (HCI) researcher specializing in ubiquitous information experiences. I design, implement, and evaluate new ways to communicate and collaborate around data.</p>	
EDUCATION			
DOCTOR OF PHILOSOPHY, COMPUTER SCIENCE			2011 – 2016
University of British Columbia (UBC), Vancouver, Canada SUPERVISORY COMMITTEE: Tamara Munzner (UBC CS), Joanna McGrenere (UBC CS), Ronald Rensink (UBC Psychology)			
MASTER OF SCIENCE, COMPUTER SCIENCE			2009 – 2011
Specialization in Human-Computer Interaction University of British Columbia, Vancouver, Canada SUPERVISORY COMMITTEE: Joanna McGrenere (UBC CS), Claudia Jacova (UBC Medicine)			
BACHELOR OF COMPUTING			2004 – 2009
Specialization in Cognitive Science with Professional Internship Queen's University, Kingston, Canada			
EMPLOYMENT EXPERIENCE			
Lead Research Staff			SINCE 2023
Senior Research Staff			2020 - 2023
Research Scientist			2019 – 2020
Tableau (a Salesforce Company), Seattle, USA <i>Prototyped new experiences for communicating around data, from generative visualization design inspiration (TVCG-22a) to presenting data in augmented reality video (UIST-22); led customer research on synchronous communication around data (TVCG-22b); advised research interns; consulted with product teams regarding visualization authoring experiences.</i>			
Postdoctoral Researcher			2016 – 2019
Microsoft Research, Redmond, USA <i>Developed and deployed Timeline Storyteller (C+J-19), a narrative visualization application for the web and Power BI; conducted quantitative crowdsourced research experiments involving interactive data visualization on mobile devices (TVCG-20a, TVCG-19a); consulted with product and outreach teams, including Microsoft's Data Journalism Team.</i>			
Graduate Research Assistant			2009 – 2016
University of British Columbia Department of Computer Science, Vancouver, Canada <i>Applied theories and methods from human-computer interaction (HCI) to the design and evaluation of information visualization tools (T-16) in the domains of journalism (TVCG-14) and energy conservation (TVCG-16a); designed and conducted mixed-methods research studies pertaining to the design of a self-administered computerized cognitive testing application (CHI-12, T-11).</i>			
PhD Research Intern			2015
Microsoft Research, Redmond, USA <i>Developed a web-based interactive timeline visualization tool incorporating animation and annotation (TVCG-17).</i>			
Mitacs Accelerate PhD Research Intern			2013 – 2014
Pulse Energy (now a division of Enel X, formerly EnerNOC), Vancouver, Canada <i>Conducted human-centred visualization research and development while embedded in the product development team of a commercial energy analytics startup; developed an interactive energy portfolio visualization dashboard application (TVCG-16a).</i>			
Graduate Teaching Assistant			2009 – 2011
University of British Columbia Department of Computer Science, Vancouver, Canada <i>Led tutorial sessions, contributed to curriculum development, supervised group projects, and marked deliverables / tests for two senior-level undergraduate courses in HCI.</i>			
Research Assistant			2009
Queen's University School of Computing, Kingston, Canada <i>Developed GAIM (FP-10), a device-agnostic toolkit for exercise video game development, one that allows people with different input peripherals to play together.</i>			
User Experience Design / Development Intern			2007 – 2008
EMC Corporation (now Dell EMC), Toronto, Canada <i>Performed requirements analysis, user interface design, and front-end development for a rich media content management web application for the automotive sector.</i>			
Information Technology Staff / Web Developer			2006
Killam Properties, Inc., Halifax, Canada <i>Maintained and updated web content for a regional residential property management company.</i>			

PUBLICATIONS





 icons link to author copies / pre-prints, which are also provided at mattbrehmer.ca/#pubs.
My current h index is 21 (GOOGLE SCHOLAR, JAN. 2024). Legend: * = student intern, AR = acceptance rate, CC = citation count.


PEER-REVIEWED JOURNAL AND CONFERENCE PAPERS

-  **TimeSplines: Sketch-based Authoring of Flexible and Idiosyncratic Timelines** TVCG-24
Anna Offenwanger, [Matthew Brehmer](#), Fanny Chevalier, & Theophanis Tsandilas.
In Vol. 30-1 (2024) *IEEE Transactions on Visualization and Computer Graphics* (VIS 2023).
 IEEE VIS BEST PAPER AWARD
-  **Augmented Chironomia for Presenting Data to Remote Audiences** UIST-22
Brian D. Hall*, Lyn Bartram, & [Matthew Brehmer](#).
In Proceedings of the *ACM Symposium on User Interface Software and Technology* (UIST 2022). AR: 26% CC: 13
 ACM UIST BEST PAPER HONORABLE MENTION AWARD
-  **Generative Design Inspiration for Glyphs with Diatoms** TVCG-22A
[Matthew Brehmer](#), Robert Kosara, & Carmen Hull*.
In Vol. 28-1 (2022) *IEEE Transactions on Visualization & Computer Graphics* (Presented at IEEE VIS 2021). AR: 26% CC: 10
-  **From Jam Session to Recital: Synchronous Communication & Collaboration Around Data in Organizations** TVCG-22B
[Matthew Brehmer](#) & Robert Kosara.
In Vol. 28-1 (2022) *IEEE Transactions on Visualization & Computer Graphics* (Presented at IEEE VIS 2021). AR: 26% CC: 22
-  **QualDash: Adaptable Generation of Visualisation Dashboards for Healthcare Quality Improvement** TVCG-21
Mai Elshehaly, Rebecca Randell, [Matthew Brehmer](#), Lynn McVey, Natasha Alvarado, Chris P. Gale, & Roy A. Ruddle.
In Vol. 27-2 (2021) of *IEEE Transactions on Visualization & Computer Graphics* (IEEE VIS 2020). CC: 38
-  **Orchard: Exploring Multivariate Heterogeneous Networks on Mobile Phones** CGF-20
Philipp Eichmann*, Darren Edge, Nathan Evans, Bongshin Lee, [Matthew Brehmer](#), & Christopher White.
In Vol. 29-3 (2020) of *Computer Graphics Forum* (EuroVis 2020). CC: 8
-  **A Comparative Evaluation of Animation & Small Multiples for Trend Visualization on Mobile Phones** TVCG-20A
[Matthew Brehmer](#), Bongshin Lee, Petra Isenberg, & Eun Kyoung Choe.
In Vol. 26-1 (2020) of *IEEE Transactions on Visualization & Computer Graphics* (Presented at IEEE VIS / InfoVis 2019). AR: 26% CC: 59
-  **Critical Reflections on Visualization Authoring Systems** TVCG-20B
Arvind Satyanarayan, Bongshin Lee, Donghao Ren, Jeffrey Heer, John Stasko, John R. Thompson, [Matthew Brehmer](#), and Zhicheng Liu.
In Vol. 26-1 (2020) of *IEEE Transactions on Visualization & Computer Graphics* (IEEE VIS / InfoVis 2019). AR: 26% CC: 81
-  **Thumbnails for Data Stories: A Survey of Current Practices** VIS-19
Hwiyeon Kim, Juyoung Oh, Yunha Han, Sungahn Ko, [Matthew Brehmer](#), & BC Kwon.
In *Short Paper Proceedings of IEEE VIS 2019*. AR: 32% CC: 10
-  **Inking Your Insights: Investigating Digital Externalization Behaviors During Data Analysis** ISS-19
Yea-Seul Kim*, Nathalie Henry Riche, Bongshin Lee, [Matthew Brehmer](#), Michel Pahud, Ken Hinckley, & Jessica Hullman.
In *Proceedings of the 2019 ACM Conference on Interactive Surfaces & Spaces* (ISS). CC: 17
-  **DataToon: Drawing Dynamic Network Comics With Pen + Touch Interaction** CHI-19
Nam Wook Kim*, Nathalie H. Riche, Benjamin Bach, Guanpeng A. Xu, [Matthew Brehmer](#), Ken Hinckley, Michel Pahud, Haijun Xia, Michael McGuffin, & Hanspeter Pfister.
In *Proceedings of the 2019 ACM Conference on Human Factors in Computing Systems* (CHI). AR: 24% CC: 68
-  **Timeline Storyteller: The Design & Deployment of an Interactive Authoring Tool for Expressive Timeline Narratives** C+J-19
[Matthew Brehmer](#), Bongshin Lee, Nathalie H. Riche, David Tittsworth, Kate Lytvynets, Darren Edge, & Christopher White.
Proceedings of the 2019 Computation + Journalism Symposium. CC: 19
-  **Visualizing Ranges over Time on Mobile Phones: A Task-Based Crowdsourced Evaluation** TVCG-19A
[Matthew Brehmer](#), Bongshin Lee, Petra Isenberg, & Eun Kyoung Choe.
In Vol. 25-1 (2019) of *IEEE Transactions on Visualization & Computer Graphics* (Presented at IEEE VIS / InfoVis 2018). AR: 25% CC: 58
-  **Charticulator: Interactive Construction of Bespoke Chart Layouts** TVCG-19B
Donghao Ren*, Bongshin Lee, & [Matthew Brehmer](#).
In Vol. 25-1 (2019) of *IEEE Transactions on Visualization & Computer Graphics* (IEEE VIS / InfoVis 2018). AR: 25% CC: 118
 IEEE INFOVIS BEST PAPER HONORABLE MENTION AWARD

-  **What's the Difference? Evaluating Variants of Multi-Series Bar Charts for Visual Comparison Tasks** CHI-18
Arjun Srinivasan*, [Matthew Brehmer](#), Bongshin Lee, & Steven Drucker.
In *Proc. of the 2018 ACM Conference on Human Factors in Computing Systems (CHI)*. AR: 26% CC: 36
-  **Timelines Revisited: A Design Space & Considerations for Expressive Storytelling** TVCG-17
[Matthew Brehmer](#), Bongshin Lee, Benjamin Bach, Nathalie H. Riche, and Tamara Munzner.
In Vol. 23-9 (2017) of *IEEE Transactions on Visualization & Computer Graphics* (Presented at IEEE VIS 2017). CC: 235
-  **ChartAccent: Annotation for Data-Driven Storytelling** PVIS-17
Donghao Ren, [Matthew Brehmer](#), Bongshin Lee, Tobias Höllerer, and Eun Kyoung Choe.
In *Proc. of the 2017 IEEE PacificVis Symposium*. CC: 135
-  **Matches, Mismatches, & Methods: Multiple-View Workflows for Energy Portfolio Analysis** TVCG-16A
[Matthew Brehmer](#), Jocelyn Ng, Kevin Tate, & Tamara Munzner.
In Vol. 22-1 (2016) of *IEEE Transactions on Visualization & Computer Graphics* (Presented at IEEE VIS / InfoVis 2015). AR: 21% CC: 45
-  **TimeLineCurator: Interactive Authoring of Visual Timelines from Unstructured Text** TVCG-16B
Johanna Fulda, [Matthew Brehmer](#), & Tamara Munzner.
In Vol 22-1 (2016) of *IEEE Transactions on Visualization & Computer Graphics* (IEEE VIS / VAST 2015). CC: 98
- C-TOC (Cognitive Testing on Computer): Investigating the Usability & Validity of a Novel Self-administered Cognitive Assessment Tool in Aging & Early Dementia** ADAD-15
Claudia Jacova, Joanna McGrenere, Hyunsoo S. Lee, William Wang, Sarah Le Huray, Emily F. Corenblith, [Matthew Brehmer](#), Charlotte Tang, Sherri Hayden, B. Lynn Beattie, & Ging-Yuek R. Hsiung.
In *Alzheimer Disease & Associated Disorders (July 2015)*. CC: 17
-  **Overview: The Design, Adoption, & Analysis of a Visual Document Mining Tool For Investigative Journalists** TVCG-14
[Matthew Brehmer](#), Stephen Ingram, Jonathan Stray, & Tamara Munzner.
In Vol. 20-12 (2014) of *IEEE Transactions on Visualization & Computer Graphics* (Presented at IEEE VIS / InfoVis 2014). AR: 23% CC: 138
-  **A Multi-Level Typology of Abstract Visualization Tasks** TVCG-13
[Matthew Brehmer](#) & Tamara Munzner.
In Vol. 19-12 (2013) of *IEEE Transactions on Visualization & Computer Graphics* (Presented at IEEE VIS / InfoVis 2013). AR: 25% CC: 816
 IEEE VIS TEST OF TIME AWARD 2023.
-  **Investigating Interruptions in the Context of Computerized Cognitive Testing for Older Adults** CHI-12
[Matthew Brehmer](#), Joanna McGrenere, Charlotte Tang, & Claudia Jacova.
In *Proc. of the 2012 ACM Conference on Human Factors in Computing Systems (CHI)*. AR: 23% CC: 13
-  **The Haptic Crayola Effect: Exploring the Role of Naming in Learning Haptic Stimuli** WHC-11
Inwook Hwang, Karon MacLean, [Matthew Brehmer](#), Jeff Hendy, Andreas Sotirkopoulos, & Seungmoon Choi.
In *Proc. of the 2011 IEEE World Haptics Conference*. CC: 13
-  **Activate Your GAIM: A Toolkit for Input in Active Games** FP-10
[Matthew Brehmer](#), Nicholas Graham, & Tadeusz Stach.
In *Proc. of the 2010 ACM Future Play Conference*. CC: 17
-  **Classifying Input for Active Games** ACE-09
Tadeusz Stach, Nicholas Graham, [Matthew Brehmer](#) & Andreas Hollatz.
In *Proc. of the 2009 ACM Conference on Advances in Computer Entertainment Technology (ACE)*. CC: 30

PEER-REVIEWED WORKSHOP PAPERS

-  **Visualizing the Weird and the Eerie** ALT.VIS-23
[Matthew Brehmer](#). In *Proc. of the alt.VIS Workshop* at IEEE VIS 2023.
-  **Combining Voice and Gesture for Presenting Data to Remote Audiences** MERCADO-23
Arjun Srinivasan & [Matthew Brehmer](#). In *Proc. of the MERCADO Workshop* at IEEE VIS 2023.
-  **Reflecting on the Evaluation of Visualization Authoring Systems** BELIV-18
Donghao Ren, Bongshin Lee, [Matthew Brehmer](#), & Nathalie H. Riche.
In the *Proc. of the 2018 BELIV Workshop: Evaluation & Beyond – Methodological Approaches for Visualization* CC: 40
-  **Data Visualization on Mobile Devices** CHI-EA-18
Bongshin Lee, [Matthew Brehmer](#), Eun Kyoung Choe, Petra Isenberg, Ricardo Langer, & Raimund Dachsel.
In *Extended Abstract Proc. of the 2018 ACM Conference on Human Factors in Computing Systems (CHI)* CC: 32

 **Visualizing Dimensionally-Reduced Data: Interviews with Analysts & a Characterization of Task Sequences** BELIV-14a
[Matthew Brehmer](#), Michael Sedlmair, Stephen Ingram, & Tamara Munzner.
In *Proc. of the 2014 ACM BELIV Workshop: Beyond Time & Errors – Novel Evaluation Methods for Visualization* cc: 105.

 **Pre-Design Empiricism for Information Visualization: Scenarios, Methods, & Challenges** BELIV-14b
[Matthew Brehmer](#), Sheelagh Carpendale, Bongshin Lee, & Melanie Tory.
In *Proc. of the 2014 ACM BELIV Workshop: Beyond Time & Errors – Novel Evaluation Methods for Visualization* cc: 36.

BOOK CHAPTERS


Interacting with Visualization on Mobile Devices MDV-21a
[Matthew Brehmer](#), Bongshin Lee, John Stasko, & Christian Tominski.
To appear in *Mobile Data Visualization*, edited by B. Lee, R. Dachsel, P. Isenberg, E. K. Choe (CRC Press, 2021). cc: 3

Responsive Visualization Design for Mobile Devices MDV-21b
Tom Horak, Wolfgang Aigner, [Matthew Brehmer](#), Alark Joshi, & Christian Tominski.
To appear in *Mobile Data Visualization*, edited by B. Lee, R. Dachsel, P. Isenberg, E. K. Choe (CRC Press, 2021). cc: 8


Evaluating Data-Driven Stories & Storytelling Tools DDS-18
Fereshteh Amini^o, [Matthew Brehmer](#)^o (contributed equally), Gordon Bolduan, Christina Elmer, & Benjamin Wiederkehr.
In *Data-Driven Storytelling*, edited by S. Carpendale, N. Diakopoulos, C. Hurter, N. H. Riche (CRC Press, 2018) cc: 23.


OTHER PUBLICATIONS

Inspiration at the Roll of the Dice: An Exercise in Aleatoric Visualization Design N-22
[Matthew Brehmer](#). In *Nightingale* Issue #2 (Winter 2022): "Inspiration".

 **Demonstrating the Value of Visualization: Highlights from the 2017 PacificVis Visual Data Storytelling Contest** VIS-17
[Matthew Brehmer](#), Kyungwon Lee, Ivan Viola, Jinwook Seo, & Bongshin Lee.
In *Poster Proceedings of the 2017 IEEE VIS Conference*.

Why Visualization? Task Abstraction for Analysis & Design T-16
[Matthew Brehmer](#). University of British Columbia PhD Dissertation (2016). cc: 7

 **Dimensionality Reduction in the Wild: Gaps & Guidance** TR-2012
Michael Sedlmair, [Matthew Brehmer](#), Stephen Ingram, & Tamara Munzner.
University of British Columbia Technical Report TR-2012-03 (2012) cc: 61.

 **Usability & the Effects of Interruption in C-TOC: Self-Administered Cognitive Testing on a Computer** T-11
[Matthew Brehmer](#). University of British Columbia MSc Thesis (2011) cc: 3.

 **A Tale of Two Studies: Investigating the Impact of Interruptions on Task Performance in Older Adults** GRAND-11
[Matthew Brehmer](#), Charlotte Tang, Joanna McGrenere, & Claudia Jacova.
In the *Work-In-Progress Proceedings of the the 2011 GRAND NCE AGM*.

 **Assessing the Effect of Exercise Intensity on Cognitive Task Performance in an Exercise Video Game** T-09
[Matthew Brehmer](#). Queen's University B.Comp Honours Project (2009).

PATENTS

US11567967: Applying a Visual Analytics Intent Language to Infer Ambiguous or Underspecified Intent, US11561998: Implementing a Visual Analytics Intent Language Across Multiple Devices, US11409763: Applying a Visual Analytics Intent Language to Generate Data Visualizations P-2023b
Vidya Setlur, Scott Sherman, & [Matthew Brehmer](#). Issued 2023-01-31, 2023-01-24, 2022-08-09. P-2023a
P-2022

US11210825: Glyph Scaffolds for Generating Unique Glyphs to Use as Data Marks in Data Visualizations P-2021b
[Matthew Brehmer](#), Robert Kosara, & Carmen Hull*. Issued 2021-12-28.

US011080914B2: Interactive Layout-Aware Construction of Bespoke Charts P-2021a
Bongshin Lee, [Matthew Brehmer](#), & Donghao Ren*. Issued 2021-08-03.

TALKS

Slides and videos available at mattbrehmer.ca/#talks.  icons link to the corresponding video.

 Test of Time Award: A Multi-Level Typology of Abstract Visualization Tasks IEEE VIS 2023 (Virtual)	2023 / 10 / 24
 Visualizing the Weird and the Eerie alt.VIS 2023 (Virtual)	2023 / 10 / 23
 Stand Behind Your Data! Outlier Conference (Virtual)	2023 / 05 / 04
New Multimodal Experiences for Communicating with an Audience about Data University of Utah Scientific Computing and Imaging Institute (Virtual)	2022 / 10 / 05
New Experiences for Communicating with an Audience About Data Maryland Institute College of Art (MICA) Data Analytics and Visualization Program (Virtual)	2022 / 10 / 03
 Generative Design Inspiration for Glyphs with Diatoms IEEE VIS 2021 (Virtual)	2021 / 10 / 29
 From Jam Session to Concert Hall IEEE VIS 2021 (Virtual, with Robert Kosara)	2021 / 10 / 27
New Perspectives on Communicating with Visualization University of Waterloo (Waterloo, Canada)	2021 / 10 / 08
 The Information in Our Hands Information+ Conference 2021 (Virtual)	2021 / 09 / 30
Interactive Tools for Visualizing Data: Perspectives from Research + Practice University of Victoria – Information Visualization – Guest Speaker Series (Virtual)	2021 / 02 / 10
 Interactive Tools for Visualizing Data: Perspectives from Research + Practice University of Edinburgh's online course for DataVis professionals (Virtual)	2020 / 06 / 24
 See & Understand Networks Tableau Conference (Las Vegas, USA, with Scott Sherman)	2019 / 11 / 13
 An Evaluation of Animation & Small Multiples for Trend Visualization on Mobile Phones IEEE VIS / InfoVis 2019 (Vancouver, Canada)	2019 / 10 / 23
Crowdsourced Evaluation for Mobile Vis Mobile Data Visualization Dagstuhl Seminar (Wadern, Germany)	2019 / 07 / 17
Expressive Visualization Tools for Data-Driven Storytelling ASA Symposium on Data Science & Statistics (SDSS) (Bellevue, USA)	2019 / 05 / 30
Visualizing Quantities & Events Over Time Chatham Labs (Toronto, Canada)	2019 / 04 / 25
Constraints & Opportunities for Expressive Information Design Tableau Research (Seattle, USA), Uncharted Software (Toronto, Canada), Simon Fraser University School of Interactive Arts & Technology (Surrey, Canada)	2019 / 04 / 09 2019 / 03 / 01 2019 / 01 / 28
Visualizing Information on Mobile Phones Microsoft Research (Redmond, USA)	2019 / 03 / 13
Considerations for Interactive & Expressive Information Design Tools University of Ontario Institute of Technology (Oshawa, Canada), Autodesk Research (Toronto, Canada)	2019 / 02 / 27 2019 / 02 / 26
 Timeline Storyteller: An Authoring Tool for Expressive Timeline Narratives The Computation + Journalism Symposium (Coral Gables, USA)	2019 / 02 / 02
 Visualizing Ranges over Time on Mobile Phones IEEE VIS / InfoVis 2018 (Berlin, Germany)	2018 / 10 / 24
Tools for Expressive Information Visualization Design Microsoft Vancouver Data Visualization Symposium (Vancouver, Canada)	2018 / 08 / 01
Timeline Storyteller, from Visualization Design Space to Deployment Data Empowerment Speaker Series (University of Calgary, Canada)	2018 / 06 / 18
Data-Driven Storytelling at Microsoft UBC School of Journalism, Topics in Contemporary Journalism: Data Viz (JRNL 520H) (Vancouver, Canada)	2017 / 10 / 24
Timelines Revisited: Considerations for Expressive Storytelling IEEE VIS 2017 (Phoenix, USA), King's College London Department of Informatics (London, UK), City University London giCentre (London, UK), Radcliffe Institute at Harvard University (Cambridge, USA)	2017 / 10 / 03 2017 / 07 / 11 2017 / 07 / 10 2016 / 12 / 08
Expressive Storytelling With Timelines Uber Visualization Night: A Journey Through Space & Time (Seattle, USA)	2017 / 08 / 31

TALKS ...CONTINUED

- ▶ **The Timeline Storyteller Custom Visual for Power BI** 2017 / 06 / 13
Microsoft Data Insights Summit BI Power Hour (Seattle, USA)
- ▶ **What Story Does Your Timeline Tell?** 2017 / 04 / 24
OpenVisConf 2017 (Boston, USA)
- Why Visualization? Task Abstraction for Analysis & Design** 2016 / 03 / 23
Dissertation Defence (Vancouver, Canada)
- Storytelling with Timeline Data** 2016 / 02 / 11
Data-Driven Storytelling Dagstuhl Seminar (Wadern, Germany)
- ▶ **Why Visualization? Task Abstraction for Analysis & Design** 2016 / 02 / 01
Microsoft Research (Redmond, USA)
- ▶ **Matches, Mismatches, & Methods: Workflows for Energy Portfolio Analysis** 2015 / 10 / 28
IEEE VIS / InfoVis 2015 (Chicago, USA)
- Multiple-View Workflows for Energy Portfolio Analysis** 2015 / 09 / 04
University of Washington (Seattle, USA)
- The Future of Data & Design ... In Visualization Research** 2015 / 05 / 19
Vancouver Data Visualization Meetup (Vancouver, Canada)
- ▶ **Overview: The Design, Adoption, & Analysis of a Visual Document Mining Tool For Investigative Journalists** 2014 / 11 / 14
IEEE VIS / InfoVis 2014 (Paris, France)
- Visualizing Dimensionally-Reduced Data: Interviews with Analysts & a Characterization of Task Sequences** 2014 / 11 / 10
ACM BELIV 2014 (Paris, France)
- Pre-Design Empiricism for Information Visualization** 2014 / 11 / 10
ACM BELIV 2014 (Paris, France)
- Visualization Task Abstraction from Multiple Perspectives** 2014 / 11 / 08
IEEE VIS Doctoral Colloquium 2014 (Paris, France)
- A Multi-Level Typology of Abstract Visualization Tasks** 2013 / 10 / 15
IEEE VIS / InfoVis 2013 (Atlanta, USA)
- Investigating Interruptions in the Context of Computerized Cognitive Testing for Older Adults** 2012 / 05 / 10
ACM CHI 2012 (Austin, USA)
- The Impact of Interruptions on Task Performance in Older Adults** 2011 / 05 / 14
GRAND NCE AGM 2011 (Vancouver, Canada)

PANELS

- ▶ **Visualization in Context** 2022 / 01 / 24
Data Visualization Society Fireside Chat (Virtual, with K. Wu, F. Elavsky, and A. Makulec)
- ▶ **Writing About Visualization** 2021 / 10 / 25
VisInPractice @ IEEE VIS 2021 (Virtual, with M. Aviles, T. Alocci, P. Zagami, C. Miles, and D. Szafir)
- ▶ **Visualization Consulting & Freelancing** 2020 / 10 / 26
VisInPractice @ IEEE VIS 2020 (Virtual, with J. Zhang, K. Henry, and C. Kelleher)

DEMONSTRATIONS

- ▶ **Augmented Chironomia for Presenting Data to Remote Audiences** 2022 / 10 / 31
ACM Symposium on User Interface Software and Technology / UIST 2022 (Bend, USA)
- ▶ **Tilt & Pose-Based Gesture Interaction** 2019 / 03 / 04
Microsoft TechFest 2019 (Redmond, USA)
- ▶ **Timeline Storyteller** 2019 / 02 / 01
The Computation + Journalism Symposium (Coral Gables, USA)
2017 / 03 / 09
Microsoft Research Week (Redmond, USA)
2017 / 03 / 01
Tapestry Conference 2017 (St. Augustine, USA)
- ▶ **Charticulator** 2018 / 12 / 01
Tapestry Conference 2018 (Coral Gables, USA)

SERVICE

COMMITTEES

Maryland Institute College of Art (MICA) Data Analytics and Visualization Program Advisory Panel	SINCE 2023
IEEE VIS Executive Committee (VEC)	2022 – 2026
IEEE Computer Society Visualization and Graphics Technical Community Executive Committee (Publications Chair)	2022 – 2025
Data Visualization Society Board of Directors Nomination Committee	2020 – 2021

ORGANIZING COMMITTEES

NII Shonan Seminar 213: Augmented Multimodal Interaction for Synchronous Collaboration	2024
IEEE VIS Workshop on Multimodal Experiences for Remote Communication Around Data Online (MERCADO)	2023
IEEE VIS (Co-Chair, VisInPractice)	2018 – 2021
IEEE VIS (Member, Committee to Attract & Retain Practitioners to VIS)	2019
ACM CHI Workshop on Data Visualization on Mobile Devices (Co-Organizer)	2018
IEEE Pacific Visualization Symposium (Co-Chair, Visual Data Storytelling Contest)	2017, 2018

PROGRAM COMMITTEES

ACM Conference on Human Factors in Computing Systems (CHI: Visualization Subcommittee)	2024
IEEE Conference on Visualization & Visual Analytics (VIS)	2021 - 2023
Information+ Conference	2018, 21, 23
IEEE Conference on Information Visualization (VIS / InfoVis)	2017 – 2019
Computation + Journalism (C+J)	2019
VISAP: The IEEE VIS Arts Program	2018
BELIV: Evaluation & Beyond – Methodological Approaches for Visualization	2018, 20, 22
IEEE Pacific Visualization Symposium (PacificVis)	2017, 2018
ACM FAT*: Fairness, Accountability, Transparency (HCI / Visualization Track)	2018
The Art of Networks III	2018
EuroGraphics / VGTC Conf. on Visualization (EuroVis) State of the Art Reports	2017

REVIEWING

IEEE Computer Graphics & Applications (CG&A: Visualization Viewpoints)	2023
Transactions on Behaviour & Information Technology (TBIT)	2023
ACM Symposium on User Interface Software and Technology (UIST)	2022, 2023
The alt.VIS Workshop at IEEE VIS	2023
ACM Conference on Human Factors in Computing Systems (CHI)	2013 – 2023
EuroGraphics / VGTC Conference on Visualization (EuroVis)	2014 – 2022
IEEE Transactions on Visualization & Computer Graphics (TVCG)	2015 – 2023
SAGE Information Visualization Journal	2015 – 2021
IEEE Conference on Information Visualization (VIS / InfoVis)	2013 – 16, 20
ACM Conference on Designing Interactive Systems (DIS)	2020
ACM Conference on Computer-Supported Collaborative Work (CSCW)	2020
IEEE Pacific Visualization Symposium (PacificVis)	2017, 19, 24
ACM Conference on Creativity & Cognition (C&C)	2019
IEEE Conference on Visual Analytics Science & Technology (VAST)	2015
ACM Transactions on Computer-Human Interaction (TOCHI)	2013
ACM SIGGRAPH Asia	2012
GRAND NCE AGM Work-In-Progress Short Papers	2012

STUDENT VOLUNTEERING

ACM Conference on Human Factors in Computing Systems (CHI)	201{1,3,5,6}
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INVITED WORKSHOP, CONSORTIUM, SEMINAR PARTICIPATION

IEEE VIS 2021 Doctoral Colloquium (Invited Panelist)	2021
Schloss Dagstuhl Seminar on Mobile Data Visualization	2019
BIRS Workshop on Restructuring IEEE VIS For the Future	2018
Harvard University / Sloan Foundation Timeline Consortium	2016, 17, 18
Schloss Dagstuhl Seminar on Data-Driven Storytelling	2016
ACM Beyond Time & Errors (BELIV) Workshop	2014
VACCINE / UCSD Workshop on the Evaluation of Visual Analytics	2014

UNIVERSITY SERVICE

UNIVERSITY OF BRITISH COLUMBIA DEPARTMENT OF COMPUTER SCIENCE

Graduate Admissions & Recruitment Committee	2013 – 2015
Guest Lecturer (CPSC 547: Information Visualization)	2014 – 2017
Curriculum Development (CPSC 444: Advanced HCI Methods)	2010 – 2011
Teaching Assistant (CPSC 444: Advanced Human Computer Interaction Methods)	2010
Teaching Assistant (CPSC 344: Introduction to Human Computer Interaction Methods)	2009

UNIVERSITY OF BRITISH COLUMBIA COMPUTER SCIENCE GRADUATE STUDENT ASSOCIATION

Vice President, Social Affairs	2010 – 2011
Co-Organizer, The Un-Distinguished Lecture Series	2010 – 2013

QUEENS UNIVERSITY COMPUTING STUDENT ASSOCIATION

Orientation Leader	2005
First-Year Representative	2004 – 2005

AWARDS

PROJECT RECOGNITION

IEEE VIS Conference: Test of Time Award for TVCG 13 (Task Typology)	2023
IEEE VIS Conference: Best Paper Award for TVCG 24 (TimeSplines)	2023
ACM UIST Conference: Best Paper Honorable Mention for UIST 22 (Augmented Chironomia)	2022
IEEE InfoVis Conference: Best Paper Honorable Mention for TVCG19b (Charticulator)	2018
Kantar Information is Beautiful Awards Shortlist (Charticulator)	2018

SERVICE RECOGNITION

University of British Columbia Dept. Computer Science Student Service Award	2016
University of British Columbia Dept. Computer Science Volunteering Award	2015

SCHOLARSHIPS

University of British Columbia Four Year Doctoral Fellowship	2011 – 2015
Natural Sciences & Engineering Research Council (NSERC) Postgraduate Scholarship	2011 – 2014
NSF IEEE VIS Doctoral Colloquium Travel Award	2014
Mitacs-Accelerate Research Internship Award	2013 – 2014
University of British Columbia Dept. Computer Science Merit Scholarship	2009 – 2011
Queen's University Dean's Entrance Scholarship in Computing	2004 – 2005