THE UNIVERSITY OF BRITISH COLUMBIA

Curriculum Vitae for Faculty Members

Date: July 24, 2024 Initials: TM

1. SURNAME: Munzner FIRST NAME: Tamara

MIDDLE NAME: Macushla

2. DEPARTMENT/SCHOOL: Computer Science

3. FACULTY: Science

4. PRESENT RANK: Professor SINCE: August 2012

5. POST-SECONDARY EDUCATION

(a) Degrees

University or Institution	Degree	Subject Area	Dates
Stanford University Stanford University	Ph.D. B.S.	•	Sep 1995 - Jun 2000 Sep 1986 - Jun 1991

Title of Ph.D. Dissertation: Interactive Visualization of Large Graphs and Networks

Name of Supervisor: Pat Hanrahan

6. EMPLOYMENT RECORD

(a) Prior to coming to UBC

University, Company or Organization	Rank or Title	Dates
Compaq Systems Research Center	Research Scientist	9/00-5/02
Microsoft Research	Summer Intern	6/98-9/98
Silicon Graphics, Inc.	Part-Time Consultant and Summer Intern	3/96-6/98
The Geometry Center	Senior Technical Staff	6/92-5/95
The Geometry Center	Apprentice	6/91-6/92
Geometry Supercomputer Project	Summer Intern	6/90-9/90
ETA Systems	Summer and Part-Time Intern	6/86-9/88

Compaq SRC was formerly DEC SRC, before Digital was bought by Compaq. The Geometry Center was the short name of the NSF-funded National Science and Technology Research Center for Computation and Visualization of Geometric Structures, which existed from 1991 to 1998. It was located at the University of Minnesota. It grew out of the smaller Geometry Supercomputer Project, also funded by the NSF. ETA Systems was a supercomputer spinoff from Control Data Corporation.

(b) At UBC

Rank or Title	Dates
Associate Head for Research and Faculty Affairs	Jul 2014 - Jul 2017
Professor	Aug 2012 - present
Associate Professor	Aug 2007 - Aug 2012
Assistant Professor	Jul 2002 - Aug 2007

(c) Date of granting of tenure at UBC: August 2007

7. LEAVES OF ABSENCE

(a) From UBC

Type of Leave	Dates
Sabbatical	Jan 2024 - Dec 2024
Sabbatical	Jul 2018 – Jun 2019
Sabbatical	Jul 2013 – Jun 2014
Sabbatical	Jul 2008 – Jun 2009
Medical	Jan 2008 – Jun 2008

(b) Visiting Researcher

University, Company or Organization	Position	Dates
Université de Bordeaux I	9	Jun 2004 – Jul 2004
Technische Universität Berlin	Visiting Researcher	May 1995 – July 1995

8. TEACHING

- (a) Areas of special interest and accomplishments
 - Publication of book, Visualization Analysis and Design (CRC/Routledge, 2014): My book has become one of the most widely used texts in the field of visualization. It has received over 2200 citations (Google Scholar, Oct. 2023), has sold over 10,000 copies, and is used in at least 100 courses around the world. I use it for both grad and undergrad teaching at UBC.
 - Design of CPSC 547/533C, graduate Information Visualization: When I introduced this course in 2003 there were fewer than one dozen university offerings worldwide. The curriculum materials that I have developed for this course, including editable lecture slides and extensive additional reading lists, are all posted on the open web and have been widely adopted and adapted by many other instructors. 547 is usually the second-largest graduate course in our department, and attracts many students from other units including ECE, many life science departments, geography, and the iSchool.
 - Design of CPSC 447/436V, undergraduate Information Visualization: I designed this new course to be fully flipped. To teach the theoretical material, I have created a full set of pre-class lecture videos for the theoretical material (over 500 minutes in total), followed with active learning exercises in class, and post-class foundations assignments. The programming platform (D3) is taught with a full suite of written tutorials and advanced case studies for students to work through at their own pace (checked with online quizzes), that we developed with Skylight funding. The concluding 6-week team project requires integration and synthesis of theory and practice.
 - Design of DSCI 531/532, Visualization for Data Science: To support the Masters of Data Science (MDS) program I developed and taught two new 1-credit modules (4 weeks, 3 hrs/week). I adapted a subset of the foundational material from my CS graduate course augmented with new exercises in the R and python languages that we developed to dovetail nicely with the data science curriculum.
 - Design of JOURN 520M, Visualization for Journalists: To support the J-School I developed a new 1.5 credit module (6 weeks, 3 hrs/weeks) for journalism master's students. I adapted foundational material from my standard graduate course, and developed a full set of exercises in the Tableau tool to make the material accessible to non-programmer journalist students without a background in data analysis.
 - **Update of CPSC 314/414, Intro to Computer Graphics:** I substantially updated this course in my early years of teaching it, from 2003-2005, by integrating curricular approaches from several different strong graphics programs into the base of the previous offerings from UBC CS. Early versions of the course were purely lecture based; I introduced active learning elements starting in 2008, with think-pair-share exercises built around software demos. I continued to refine the course each year that I taught it, through 2016.

(b) Courses Taught at UBC

Year	Session	Course Number	Name	Units	Weeks	Lecture Hrs/Week	Class Size	Student Evals
2023	Fall	CPSC 447	Information Visualization (ugrad)	3	13	3	83	4.5
2023	Spring	CPSC 447	Information Visualization (ugrad)	3	13	3	117	4.3
s2022	Fall	CPSC 547	Information Visualization (grad)	3	13	3	28	4.8
2022	Spring	CPSC 436V	Information Visualization (ugrad)	3	13	3	75	4.8
2021	Fall	CPSC 547	Information Visualization (grad)	3	13	3	33	4.6
2021	Spring	CPSC 436V	Information Visualization (ugrad)	3	13	3	77	4.67
2020	Fall	CPSC 547	Information Visualization (grad)	3	13	3	37	4.78
2020	Spring	CPSC 436V	Information Visualization (ugrad)	3	13	3	70	4.35
2019	Fall	CPSC 547	Information Visualization (grad)	3	13	3	31	4.83
2018	Spring	DSCI 532	Data Visualization I	1	4	3	43	3.6
2017	Fall	CPSC 547	Information Visualization (grad)	3	13	3	17	4.1
2017	Spring	CPSC 547	Information Visualization (grad)	3	13	3	18	4.7
2017	Spring	DSCI 532	Data Visualization II	1	4	3	21	3.0
2016	Fall	DSCI 531	Data Visualization II	1	4	3	22	3.5
2016	Fall	JRNL 520M	Visualization for Journalists	1.5	6	3	15	4.5
2016	Spring	CPSC 314	Intro to Computer Graphics	3	13	3	82	3.9
2015	Fall	JRNL 520M	Visualization for Journalists	1.5	6	3	18	4.2
2015	Fall	CPSC 547	Information Visualization (grad)	3	13	3	26	4.7
2014	Fall	CPSC 547	Information Visualization (grad)	3	13	3	19	4.8
2013	Spring	CPSC 314	Intro to Computer Graphics	3	13	3	67	4.1
2013	Fall	CPSC 213	Intro to Systems	3	13	3	71	3.9
2012	Spring	CPSC 213	Intro to Systems	3	13	3	117	3.8
2011	Fall	CPSC 533C	Information Visualization (grad)	3	13	3	12	4.6
2010	Fall	CPSC 213	Intro to Systems	3	13	3	112	4.2
2010	Spring	CPSC 111	Intro to Programming	3	13	3	112	3.4
2010	Spring	CPSC 314	Intro to Computer Graphics	3	13	3	64	3.4
2009	Fall	CPSC 533C	Information Visualization (grad)	3	13	3	16	4.7
2007	Fall	CPSC 533C	Information Visualization (grad)	3	13	3	5	4.7
2007	Spring	CPSC 314	Intro to Computer Graphics	3	13	3	37	4.14
2006	Fall	CPSC 533C	Information Visualization (grad)	3	13	3	10	4.43
2006	Spring	CPSC 111	Intro to Programming	3	13	3	76	3.58
2005	Fall	CPSC 533C	Information Visualization (grad)	3	13	3	19	4.45
2005	Summer	CPSC 314	Intro to Computer Graphics	3	13	3	20	3.77
2005	Spring	CPSC 314	Intro to Computer Graphics	3	13	3	78	3.73
2004	Fall	CPSC 533C	Information Visualization (grad)	3	13	3	5	4.8
2004	Spring	CPSC 533C	Information Visualization (grad)	3	13	3	21	4.47
2003	Fall	CPSC 414	Intro to Computer Graphics	3	13	3	90	3.23
2003	Spring	CPSC 533C	Information Visualization (grad)	3	13	3	13	4.3

Funding for Course Development

Source	Course	Total Funds	Year(s)	PI
UBC Skylight / UBC CS	Information Visualization (436V)	\$5500	2019-2020	Munzner

(c) Students Supervised and/or Cosupervised at UBC

The start year indicates the year I began to supervise a student, not the year the student was enrolled in the program.

Postdocs Supervised

		Υ	ear	Principal	
Student Name	Inst.	Start	Finish	Supervisor	Co-Supervisor
Charles Berret	UBC	2020	2022	Tamara Munzner	
Jürgen Bernard	UBC	2019	2020	Tamara Munzner	
Michelle Borkin	UBC	2014	2015	Tamara Munzner	
Stephen Ingram	UBC	2013	2014	Tamara Munzner	
Michael Sedlmair	UBC	2010	2012	Tamara Munzner	
Miriah Meyer	Harvard	2008	2011	Hanspeter Pfister (Harvard)*	Tamara Munzner*
Melanie Tory	UBC	2004	2006	Tamara Munzner*	Kelly Booth (UBC)*

Berret is now a postdoc at Linkoping University in Sweden. Bernard is now assistant professor at Zurich. Borkin is now an assistant professor at Northeastern. Ingram was at the startup Coho Data and is now at RISC Networks. Sedlmair was a junior professor at Vienna and is now professor at Stuttgart. Meyer is now associate professor at Utah. Tory was an associate professor at Victoria, then a research scientist at Tableau Research, now director of the Roux Institute of Northeastern.

PhD Students Supervised

		Year		Principal	
Student Name Inst. Start F		Finish	Supervisor	Co-Supervisor	
Ryan Smith	UBC	2022	cont	Tamara Munzner	
Mathias Oddo	UBC	2022	cont	Tamara Munzner	
Mara Solen	UBC	2021	cont	Tamara Munzner	
Francis Nguyen	UBC	2019	cont	Tamara Munzner	Margo Seltzer (UBC)
Steve Kasica	UBC	2018	cont	Tamara Munzner	
Michael Oppermann	UBC	2017	2021	Tamara Munzner	
Zipeng Liu	UBC	2016	2021	Tamara Munzner	
Anamaria Crisan	UBC	2015	2019	Tamara Munzner*	Jennifer Gardy (UBC)*
Georges Hattab	Bielefeld	2016	2018	Tim Nattkemper (Biel.)	Tamara Munzner
Matt Brehmer	UBC	2011	2016	Tamara Munzner	J McGrenere (UBC)
Stephen Ingram	UBC	2007	2013	Tamara Munzner	
Penny McLachlan	UBC	2006	DNC [†]	Tamara Munzner	
James Slack	UBC	2005	DNC [†]	Tamara Munzner	
Heidi Lam	UBC	2004	2008	Tamara Munzner	
Daniel Archambault	UBC	2003	2008	Tamara Munzner*	David Auber (Bordeaux)*

Smith and Oddo are currently PhD Track. Oppermann went on to senior data science consultant at Virtual Identity. Liu went on to assistant professor at Beihang. Crisan went on to permanent position at Tableau Research. Hattab went on to postdoc at the Dresden Center for Tumor Diseases, then junior group leader at Marburg, then group leader at Robert Koch Institute. Brehmer went on to postdoc at Microsoft Research and then permanent position at Tableau Research. Ingram was on leave from the PhD program from fall 2008 to winter 2009, and went on to a postdoc with me. McLachlan took a leave from the PhD program to co-found the Mobify startup, led it for a decade, and is now at Google. Slack is now at Oracle. Lam is at Google, after a stint at Tableau Research. Archambault is now associate professor at Swansea.

MSc Students Supervised

			Υ	ear	Principal	
Student Nar	me	Inst.	Start	Finish	Supervisor	Co-Supervisor
Kimberly Romagnino	Dextras-	UBC	2016	2018	Tamara Munzner	

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^{*}Symmetric co-supervision: both faculty members acted as principal supervisors.

[†]This student left for a job in industry before completing a thesis.

MSc Students Supervised (continued)

		Υ	ear	Principal	
Student Name	Inst.	Start	Finish	Supervisor	Co-Supervisor
Wenqiang (Dylan) Dong	UBC	2016	2017	Tamara Munzner	
Johanna Fulda	LMU/UBC	2014	2015	Tamara Munzner	Andreas Butz (LMU)
Jessica Dawson	UBC	2011	2013	Tamara Munzner*	J McGrenere (UBC)*
Joel Ferstay	UBC	2012	2013	Cydney Nielsen (BC Cancer)	Tamara Munzner
Stephen Ingram	UBC	2006	2007	Tamara Munzner	Marc Olano (UMBC)
Aaron Barsky	UBC	2006	2008	Tamara Munzner	
Penny McLachlan	UBC	2005	2006	Tamara Munzner	
Qiang Kong	UBC	2004	2006	Tamara Munzner*	Raymond Ng (UBC)*
Adam Bodnar	UBC	2004	2006	Tamara Munzner*	J McGrenere (UBC)*
Dmitry Nekrasovski	UBC	2004	2005	Joanna McGrenere (UBC)*	Tamara Munzner*
Dale Beerman	Virginia	2003	2004	Greg Humphreys (Virginia)	Tamara Munzner
Kristian Hildebrand	Weimar/	2003	2005	Bernd Froehlich (Weimar)	Tamara Munzner
Matt Williams	UBC UBC	2003	2004	Tamara Munzner	
James Slack	UBC	2003	2005	Tamara Munzner	

Dextras-Romagnino went to Kabam then Booking.com. Dong went to The Sky Guys then Coastline Market. Fulda was a visiting student from Munich who stayed in Vancouver, with jobs at Cumul8 then Clir. Dawson went on to teaching in UBC CS as a lecturer and then enrolled in the UBC medical school program. Ferstay went on to AeroInfo, the company that partially funded his thesis work. Ingram went on to the UBC PhD program. Barsky went BC Cancer then Hemisphere Games then LionsGate then Aimsio. McLachlan went on to the UBC PhD program, then co-founded Mobify, then Google. Kong went to Electronic Arts. Bodnar went to WorkBrain. Nekrasovski went to IBM then ElasticPath then OpenText. Beerman went to StudyBlue. Hildebrand was a visiting student at UBC from Sep 2003 to Aug 2004; he went on to the PhD program at TU Berlin then prof at Beuth. Williams rejoined the Vancouver public school system as a math and computer science teacher.

Undergraduate Students Supervised

			Year		Principal	
Student Name	Inst.	Program	Start	Finish	Supervisor	Co-Supervisor
Sam Fraser	UBC	Dir. studies	2022	2023	Tamara Munzner	
Edris Wu	UBC	Dir. studies	2022	2022	Tamara Munzner	
Shabab Khan	UBC	Ugrad co-op	2021	2021	Tamara Munzner	Margo Seltzer (UBC)
Mara Solen	UBC	Dir. studies	2020	2021	Tamara Munzner	
Luce Liu	UBC	Dir. studies	2021	2021	Tamara Munzner	
Jude Shamsi	UBC	Dir. studies	2021	2021	Tamara Munzner	Margo Seltzer (UBC)
Shannah Fisher	UBC	Dir. studies	2018	2019	Tamara Munzner	
Yann Dubois	EPFL	Summer intern	2017	2017	Tamara Munzner	Jeff Andrews (UBC-O Stats)
Parmida Esmaeilpour	UBC	Dir. studies	2016	2016	Tamara Munzner	
Jessica Dawson	UBC	Dir. studies	2009	2011	J McGrenere (UBC CS)	Tamara Munzner
Anton Zoubarev	UBC	Dir. studies	2009	2009	Tamara Munzner	
Alex Vostrov	UBC	Ugrad thesis	2005	2006	Tamara Munzner	Ken Elwood (UBC Civil)
David Westrom	UBC	Ugrad thesis	2004	2005	Tamara Munzner	
Ciarán Llachlan Leav- itt	UBC	Ugrad	2003	2008	Tamara Munzner	
Janek Klawe	UBC	Ugrad thesis	2003	2004	Tamara Munzner	
Keith Lau	UBC	Ugrad thesis	2003	2004	Tamara Munzner	Ron Rensink (UBC CS)

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^{*}Symmetric co-supervision: both faculty members acted as principal supervisors.

Undergraduate Students Supervised (continued)

			Year		Principal	
Student Name	Inst.	Program	Start	Finish	Supervisor	Co-Supervisor
Jordan Lee	UBC	Ugrad co-op	2003	2004	Tamara Munzner	
Dragana Radulovic	UBC	Ugrad co-op	2003	2004	Tamara Munzner	Raymond Ng (UBC CS)
Jeffrey Zhihui Zhang	UBC	Ugrad co-op	2003	2004	Tamara Munzner	,

Fraser joined Datadog. Wu joined CreateApe. Shamsi joined Tesla. Solen went on to UBC CS PhD program. Liu joined Mark43. Fisher went on to U Saskatchewan. Esmaeilpour went on to UBC PoliSci grad school. Dawson went on to the UBC MSc program. Zoubarev works in a UBC bioinformatics research group. Leavitt joined Slant Six and then Aristocrat. Westrom joined Electronic Arts and then Zynga. Klawe went on to the Princeton PhD program. Lau earned a master's from Cornell and then joined at Bloomberg. Lee joined Electronic Arts. Radulovic joined Joule and then Tatara Systems. Zhang joined Business Objects.

Graduate Supervisory Committees

For PhD students and MSc students outside of computer science, on committee. For MSc CS students, second reader for thesis. In both cases, start date reflects my own involvement with their work, not when the student began their program.

Student Name	Program	Start	Finish	Principal Supervisor
Rosalyn Carr	PhD	2024	cont	Matthias Gorges (UBC Med.)
Harshinee Sriram	PhD	2024	2024	Cristina Conati (UBC CS)
Negar (Nova) Sultana	MSc	2023	2024	Laura Lukes (UBC EOAS)
Negar Sadrzadeh	MSc	2022	2024	von Keyserlingk & Weary (UBC
				App. Animal Bio.)
Ivan Gill	MSc	2021	2023	Willam Hsiao (SFU Bioinf)
Paul Bucci	PhD	2020	cont	Ivan Beschastnikh (UBC CS)
Izabelle Jansen	PhD	2017	2022	Joanna McGrenere (UBC CS)
Theodore Smith	MSc	2019	2019	Philipp Lange (UBC Bioinf)
Javier Castillo	MSc	2019	2020	Bob Hancock (UBC Bioinf)
Dereck Toker	PhD	2015	2019	Cristina Conati (UBC CS)
Dirk Haupt	MSc	2016	2017	Tim Murphy (UBC Neuro.)
Chihua Ma	PhD	2016	2018	Angus Forbes (U Illinois Chicago)
Enamul Hoque	PhD	2014	2017	Giuseppe Carenini (UBC CS)
Hasti Seifi	PhD	2014	2017	Karon MacLean (UBC CS)
Rebecca McKnight Van-	MSc	2015	2015	Nick Harvey (UBC CS)
denberg				
Antoine Ponsard	MSc	2015	2016	Joanna McGrenere (UBC CS)
Nayantara Duttachoud-	MSc	2015	2016	Rachael Pottinger (UBC CS)
hury				
Niels Hanson	PhD	2013	2015	Steve Hallam (UBC Microbio)
Dereck Toker	MSc	2012	2013	Cristina Conati (UBC CS)
Anna Flagg	MSc	2012	2012	Karon MacLean (UBC CS)
Will Chao	MSc	2011	2012	Michiel van de Panne (UBC CS)
Michael Welsman-Dinelle	MSc	2010	2011	Michiel van de Panne (UBC CS)
Chaoying Chiu	PhD	2008	2011	Alan Russell (UBC Civil)
Alan McConchie	MSc	2008	2009	Brian Klinkenberg (UBC Geog)
Dave Ternes	MSc	2008	2008	Karon Maclean (UBC CS)
Michael Huggett	PhD	2006	2007	Edie Rasmussen (UBC SLAIS)
Brian de Alwis	PhD	2004	2008	Gail Murphy (UBC CS)
Mik Kersten	PhD	2004	2007	Gail Murphy (UBC CS)
Jonathan Sillito	PhD	2004	2007	Kris de Volder (UBC CS)
Stephane Durocher	PhD	2002	2006	David Kirkpatrick (UBC CS)
Chen Yang	MSc	2006	2006	Michiel van de Panne (UBC CS)

(d) Continuing Education Activities: Mini-Courses and Tutorials

Course: Visualization Analysis & Design

IEEE VIS 23, Melbourne Australia, 10/23 Half day*†

IEEE VIS 22, Oklahoma City OK, 10/22 Half day*

IEEE VIS 21, (virtual), 10/21 Full day*

Bio+Med+Vis Spring School, virtual, 5/21 1 hr tutorial

IEEE VIS 20, (virtual), 10/20 Half day*

IEEE VIS 19, Vancouver BC, 10/19 Half day*†

Dept. Industry, Innovation and Science, Canberra Australia, June 2017. Full-day tutorial for Economic and Analytical Services Division.[†]

Institute for Advanced Studies, Princeton NJ, July 2016. 3 hrs, Prospects in Theoretical Physics Summer School

VIVID Light, Music, & Ideas Festival, Sydney Australia, June 2017. Co-taught one-day masterclass. †

IEEE VIS 17, Phoenix AZ, 10/17 Full day*†

ACT Inc., Iowa City IL, July 2016. Full day

IEEE VIS 16, Baltimore MD, 10/16 Half day*†

VIVID Light, Music, & Ideas Festival, Sydney Australia, June 2015. Co-taught one-day masterclass. †

IEEE VIS 15, Chicago IL, 10/15 Half day*†

IEEE VIS 14, Paris France, 11/14 Half day*†

Sanger / European Bioinformatics Institutes, Cambridge UK, June 2014. Two one-day courses[†]

Course: Information Visualization

LaBRI / University of Bordeaux I, Bordeaux France, 6/04 6 hours †

TECS Week, Pune India, 1/08 5 hours[†]

Course: Seeing, Hearing, and Touching: Putting It All Together

SIGGRAPH 04, Los Angeles CA, 8/04 Co-taught, tutorials on Visual Encoding and Navigation through Space* †

Course: Multimodal Interface Design

SIGGRAPH 03, San Antonio TX, 07/03 Tutorial title: Applications in Information Visualization* †

Course: Design and Application of Object-Oriented 3D Visualization Systems

SIGGRAPH 97, Los Angeles CA, 8/97 Tutorial title: Survey of Visualization Toolkits* †

Course: Visualizing Mathematics

SIGGRAPH 95, Los Angeles CA, 8/95 Tutorial titles: *Visualizing Mathematics through Interactive Software* and *Visualizing Mathematics through Video** †

Course: Basic Issues on Computer-aided Math Visualization

AMS/MAA Joint Summer Meeting, Minneapolis MN, 8/94 Two-day course, co-taught with Mark Phillips and Stuart Levy.

9. SCHOLARLY AND PROFESSIONAL ACTIVITIES

(a) Areas of special interest and accomplishments

^{*}Competitively selected.

[†]Expenses paid.

(b) Research or Equivalent Grants

 ${\it Comp}$ indicates whether grants were obtained competitively (C) or non-competitively (NC).

Agency	Title	Comp	\$/Year	Year(s)	PI (& Co-PIs in italics)
NSERC Discovery	Strengthening the Methodological Foundations of Visualization	С	\$55,000/yr	5: 2024-28	Tamara Munzner
Thrive/ MITACS	Thrive Health: Designing a Personal Health Story Visualization Interface	С	\$45,000 100%	1: 2024	Tamara Munzner
UBC STAIR	Visualization of Deep Time in Informal Learning Environments	N	\$50,000 50%	2:2022-23	Laura Lukes & Tamara Munzner
NSERC CRCEF	Canada Research Continuity Emergency Fund	N	\$9,000 100%	2021	Tamara Munzner
Uber	Explainable Deep Graph Models and Latent Space Embeddings for Cohort Identification Using Visual Analytics	N	\$23,000 100%	2021	Tamara Munzner
DSI	Visual Analytics Support for the HEiDi Virtual Physician COVID-19 Deployment	N	\$40,000 100%	2020	Tamara Munzner
NSERC Discovery	Accelerating the Improvement of Visualization Design Methodology	С	\$46,000/yr 100%	10: 2014- 23	Tamara Munzner
NSERC CREATE	Designing for People: Crossdisciplinary Program in Interactive Computational Technology	С	\$1,650,000 8%	06: 2017-23	Karon MacLean & 10 others
UBC VPRI Cluster	Designing for People	С	\$200,000 n/a%	2020-21	Karon MacLean & 19 others
Cisco/ Campus as Living Lab	Locational Service Analytics: Machine Learning and Data Visualization for CMX Data Applications	С	\$43,000 100%	2017-2019	James Tansey
Adobe	(gift)	N	\$26,000	2018-2019	Tamara Munzner
NSERC ENGAGE	Ocupado: Visual Analytics for Occupancy Applications	С	\$25,000 100%	2018	Tamara Munzner
UBC VPRI Cluster	Designing for People	С	\$200,000 n/a%	2019	Karon MacLean & 19 others
UBC VPRI Cluster	Designing for People	С	\$200,000 n/a%	2018	Karon MacLean & 15 others
UBC VPRI Cluster	Designing for People	С	\$100,000 n/a%		Karon MacLean & 9 others
MITACS Accelerate	Statistical and Machine Learning with Applications to a Hybrid Recommender System for Retail Data	С	\$133,000 9%	2017	Sathish Gopalakrishnan
Mobify/ MITACS	Advancing Visualization for Mobile E-Commerce Clickstream Data	С	\$30,000 100%	1: 2016-17	Tamara Munzner
NSERC CREATE	ECOSCOPE: Ecosystem Services, Commercialization, and Entrepreneurship	С	\$1,650,000 0%	06: 2015-21	Steven Hallam & 10 others
Pulse/ MITACS	Multidimensional Energy Consumption Analysis in Large Organizations: An Information Visualization Design Study	С	\$15,000 100%	2013	Tamara Munzner
VIVA/ MITACS	Tackling the Challenge of Graph Comparison in Genomics	С	\$30,000 100%	2013	Tamara Munzner & C. Nielsen
NSERC Discovery	Building and Evaluating Information Visualization Systems	С	\$25,000/yr 100%	5: 2008-12 (+1 yr. ext.)	Tamara Munzner

(b) Research or Equivalent Grants (continued)

Agency	Title	Comp	\$/Year	Year(s)	PI (& Co-PIs in italics)	
NSERC Strategic	Visually Enhanced Exploration of High-Dimensional Data	С	\$163,216 25%	3: 2007-10 (+2 yr. ext.)	Torsten Moeller & T. Munzner, N. de Freitas, M. Tory	
-		NO		, -		
AT&T Labs	LiveRAC on Daytona	NC	\$25,313 100%	2009	Tamara Munzner	
Google	Session Viewer: A Tool to Visual- ize and Analyze Search Session Data	NC	\$48,820 100%	2007	Tamara Munzner	
AT&T Labs	Visualization of Large Network Oriented Datasets	NC	\$50,520 \$47,810 \$39,000 100%	2008 2007 2006	Tamara Munzner	
NSERC Discovery	Scalable Information Visualization	С	\$21,000 100%	5: 2003- 07	Tamara Munzner	
Agilent Labs	Location Constrained Graph Layout Algorithms	NC	\$29,000 100%	2007	Tamara Munzner	
Agilent Labs	Information Visualization Evaluation	NC	\$36,000 100%	2005	Tamara Munzner	
GEOIDE NCE	CIRCUITS: Collaborative Interdisciplinary Research on Communities Using Information Technology for Sustainability	С	\$124,500 15%	2: 2005- 06	John Robinson & 13 others	
NSF ITR subcontract	Exploring the Tree of Life	С	\$65,000 \$73,476 100%	2003 2004	Tamara Munzner	
IRIS NCE	Information Visualization for Data Mining	С	\$35,000 100%	2003	Tamara Munzner	
NSERC RTI	Displays of Disparate Resolution and Size	С	\$88,332 33%	2003	Tamara Munzner & K. MacLean, J. McGrenere, M. van de Panne	
GEOIDE NCE	GeoCognito: Connecting People with Ideas and Ideas with Place	С	\$75,000 \$75,000 \$12,500 20%	2004 2003 2002	John Robinson & 8 others	
UBC	Startup Funds	NC	\$60,000 100%	2002	Tamara Munzner	

(c) Keynotes

Reconnaissance and Recommendation: Wayfinding Through Data With Visualization Visualization in Data Science (VDS) 2023, Melbourne, 10/23.

Problem-Driven Visualization Through Design Studies

Symposium on Visual Information Communication and Interaction (VINCI) 2021, Potsdam Germany (virtual), 9/21.

ChinaVis 2020, Xi'an China (virtual), 10/20.

Information Visualization Meets Biology: Models and Methods for Collaboration Visualizing Biological Data (VIZBI) 2017, Sydney Australia, 6/17.*

^{*}Expenses paid.

Visualization and Journalism: Four Vignettes

Computation + Journalism Symposium 2016, Stanford CA, 10/16.*

Visualization Analysis & Design

Information Plus Conference (InfoPlus) 2016, Vancouver BC, 6/16.

IEEE Symposium on Pacific Visualization (PacificVis) 2016, Taipei Taiwan, 5/16.*

Visualization Analysis & Design for Biology

IEEE Symposium on Biological Visualization (BioVis) 2014, Boston MA, 7/14.*

Graph Drawing Through the Lens of a Framework for Analyzing Visualization Methods Graph Drawing Conference (GD) 2013, Bordeaux France, 9/13.*

Dimensionality Reduction From Several Angles

Workshop on Visual Analytics for Multidimensional Projections (VAMP) 2013, Leipzig Germany, 6/13.*

Visualization Principles

Workshop on Visualizing Biological Data (VizBi) 2011, Boston MA, 3/11.*

(d) Invited Presentations (Non-Conference)

Marks Revisited: Beyond Bertin

Northeastern Vancouver Seminar, Vancouver BC, 7/24

MIT HCI Seminar, Boston MA, 2/24

Developing Design Spaces for Visualization

Autodesk LIVE (Learning, Interaction, Visualization and Experiences) Speaker Series, virtual, 6/22 Stanford HCI/PCS Seminar, virtual, 3/22

Visual Data Analysis: Why? When? How?? conversation with Pat Hanrahan moderated by Jeff Heer ACM Tech Talk, virtual, 3/22

Visualization: Abstractions & Idioms

University of Coimba Guest Lecture, virtual, 3/22

Problem-Driven Interactive Visualization for Imperfect Models

Huawei Vancouver, Vancouver BC, 1/22

Visualization Analysis & Design

UBC CS Industry/Alum Lecture Series, Vancouver BC, 2/20

UBC STAT 545 (Guest Lecture), Vancouver BC, 10/17

Bedford Lab, Fred Hutch Cancer Research Center, Seattle WA, 7/17

NASA Goddard Information Science and Technology Colloquium, Greenbelt MD, 12/16*

UBC STAT 545 (Guest Lecture), Vancouver BC, 10/16

University of Illinois at Chicago Distinguished Lecture, Chicago IL, 4/15*

Tableau Software, Seattle WA, 2/15*

Microsoft Research, Seattle WA, 2/15

City University London, London UK, 2/15*

^{*}Expenses paid.

Making Data Accessible Through Visualization UBC DFP Downtown Salon, Vancouver BC, 4/19

Entry Points to Visualization: Different Methods for Different Problems Viz@UBC Lecture Series, Vancouver BC, 3/19

Ocupado: Visual Analytics for Occupancy Applications Cisco, Toronto ON, 6/18

Data Visualization Pitfalls to Avoid Monash University, Caulfield Australia, 6/17 Monash University, Clayton Australia, 6/17*

Data Visualization Pitfalls to Avoid CBR Arts Meets Science, Vancouver BC, 3/17

Visualization Design Methods Design@Large Series, UCSD Design Lab, San Diego CA, 1/17

Dimensionality Reduction From Several Angles
UCSD Data Visualization (remote Guest Lecture), 2/17
UBC Okanagan, Kelowna BC, 8/16*
UCSD Data Visualization (remote Guest Lecture), 2/16
University of Sydney, Sydney Australia, 6/15
Johannes Kepler University, Linz Austria, 5/14
Distinguished Lecture, UNC Charlotte, Charlotte NC, 4/14*
SCI Distinguished Lecture, University of Utah, Salt Lake City UT, 2/13*
FODAVA Distinguished Lecture, Georgia Tech, Atlanta GA, 12/12*

Visualization Analysis & Design for Business Intelligence Disney Research, Glendale CA, 7/15*

Visualization Analysis & Design for Genomics Centre for Heart Lung Innovation, St. Paul's Hospital, Vancouver BC, 7/15

Visualization Analysis & Design for Biology UBC CS 314 Computer Graphics (Guest Lecture), Vancouver BC, 10/14.

Variant View: Visualizing Sequence Variants in their Gene Context Oxford University, Oxford UK, 7/14

Data Visualization in Genomics and In-Car Network Engineering City University London, London UK, 7/14

A Duo of Visualization Design Studies University of Vienna, Vienna Austria, 5/14*

A Trio of Visualization Design Studies Northwestern University, Chicago IL, 4/14*

^{*}Expenses paid.

Visualization Principles Twitter, San Francisco CA, 6/12 Exploratorium, San Francisco CA, 6/12*

Visualization and Biology: Fertile Ground for Collaboration Technical University of Eindhoven, Eindhoven Netherlands, 6/09 Institute for Innovative Computing, Harvard University, Boston MA, 2/09 Harvard Medical School, Harvard University, Boston MA, 2/09 Broad Institute, Boston MA, 2/09*

Frameworks/Models Harvard CS 171, Visualization (Guest Lecture), Boston MA, 2/09

Scalable Visual Comparison of Biological Trees and Sequences
University of Maryland College Park, College Park MD, 5/06*
Distinguished Lecture, University of Maryland Baltimore County, Baltimore MD, 5/06*
Indiana University, Bloomington IN, 2/06*
Stanford Computer Systems Lab Colloquium, Stanford CA, 5/04

15 Views of a Node-Link Graph: An InfoVis Portfolio Google, Mountain View CA, 6/06 Agilent Labs, Santa Clara CA, 6/06 National Institutes of Health, Bethesda MD, 5/06 FOO (Friends of O'Reilly) Camp, Sebastopol CA, 8/05 Information Esthetics Lecture Series One, New York NY, 7/05*

Information Visualization at UBC IBM TJ Watson Research, Hawthorne NY, 7/05 Information Visualization with Accordion Drawing AT&T Research, Florham Park NJ, 7/05

TreeJuxtaposer: Scalable Tree Comparison using Focus+Context with Guaranteed Visibility CAIDA/SDSC, San Diego CA, 8/03

Interactive Information Visualization

SFU Cmpt 775, Scientific Visualization (Guest Lecture), Burnaby BC, 11/04 UBC COGS 300 (Guest Lecture), Vancouver BC, 10/04 UBC CPSC 349 Honours Seminar (Guest Lecture), Vancouver BC, 10/04 SFU Cmpt 878, Scientific Visualization (Guest Lecture), Burnaby BC, 10/03 UBC CPSC 349 Honours Seminar (Guest Lecture), Vancouver BC, 9/03 Microsoft Research, Redmond WA, 7/03 UBC CPSC 414 Intro Graphics (Guest Lecture), Vancouver BC, 3/03 UBC CPSC 349 Honours Seminar (Guest Lecture), Vancouver BC, 10/02

Interactive Visualization of Large Trees and Graphs University of Bordeaux, Bordeaux France, 12/02 University of Calgary, Calgary AB, 9/02 University of British Columbia, Vancouver BC, 4/02* UC Santa Cruz, Santa Cruz CA, 4/02* University of Minnesota, Minneapolis MN, 4/02* UC Davis, Davis CA, 4/02* University of Utah, Salt Lake City UT, 3/02*

^{*}Expenses paid.

Georgia Tech, Atlanta GA, 3/02*

Visual Structural Comparison Between Evolutionary Trees New York Academy of Sciences, New York NY, 2/02*

Interactive Visualization of Large Graphs and Networks UT Austin, Austin TX, 3/01 UC Berkeley, Berkeley CA, 10/00 CWI, Amsterdam Netherlands, 7/00 Philips Design, Eindhoven Netherlands, 7/00 Graz University of Technology, Graz Austria, 7/00 Compaq SRC, Palo Alto CA, 5/00 Lucent/Bell Labs, Naperville IL, 4/00

Fast Layout and Drawing of Large Directed Graphs Using Spanning Trees in 3D Hyperbolic Space CAIDA, San Diego CA, 11/98
HP Labs, Palo Alto CA, 11/98
Bell Labs, Murray Hill NJ, 2/98
AT&T Research, Florham Park NJ, 2/98

H3: Laying Out Large Directed Graphs in 3D Hyperbolic Space Alexa, San Francisco CA, 1/98 AT&T Research, Florham Park NJ, 9/97 UC Santa Cruz, Santa Cruz CA, 6/97

Visualizing the Web in 3D Hyperbolic Space SRI, Menlo Park CA, 4/98 MSRI, Berkeley CA, 12/96 BayCHI, Palo Alto CA, 11/96

Visualizing the Global Topology of the MBone MSRI, Berkeley CA, 12/96 Interval Research, Palo Alto CA, 12/96

The Making of Outside In and The Shape of Space University of Bielefeld, Bielefeld Germany, 7/95 University of Bonn, Bonn Germany, 7/95

Integrating 3D Visualization with the World Wide Web Apple, Sunnyvale CA, 2/96
University of Bielefeld, Bielefeld Germany, 7/95
University of Bonn, Bonn Germany, 7/95
ZIB, Berlin Germany, 6/95

Exploring Science through Video 3D Visualization in Science Spelman College, Atlanta GA, 2/95*

Visualizing the Invisible Atlanta College of Art, Atlanta GA, 2/95

^{*}Expenses paid.

Mathematical Visualization Using Geomview Spelman College, Atlanta GA, 2/95* Swarthmore-Bryn Mawr Joint Visualization Project, Swarthmore PA, 6/94 Gustavus Adolphus College, St. Peter MN, 11/93 St. John's College, Collegeville MN, 11/93

(e) Invited Conference/Workshop Presentations

Pixel-Adaptive Visual Comparison Between Many Phylogenetic Trees Asilomar Microcomputer Workshop, Monterey CA, 4/24

Geometry Center Videos, Revisited Gathering4Gardener Celebration of Mind 2021, virtual, 10/21

Visualization Challenges: Past and Future Graphics Interface 2021, virtual, 5/21

Visualization Analysis & Design

Consortium for Computing Sciences in Colleges (CCSC), Portland OR, 10/16*

Microsoft Vancouver DataViz Symposium, Vancouver BC 8/18

Graphics Interface 2016, Victoria BC, 6/16*

Dagstuhl Seminar: Bridging Information Visualization with Machine Learning, Wadern Germany, 3/15

BELIV Provocations Fireside Chat: Thoughts on Design Studies

Evaluation and Beyond - Methodological Approaches for Visualization (BELIV) Workshop, IEEE VIS, virtual, 10/20

Panel: Vis Evaluation Moving Into the Next Decade

Evaluation and Beyond - Methodological Approaches for Visualization (BELIV) Workshop, IEEE VIS, virtual, 10/20

Decoding and Encoding Visualizations: Marks, Channels, and Color Visualization for Informal Science Education (VisualISE), Exploratorium, San Francisco CA, 5/19*

Characterization of Information Visualization Systems
Conf. on Quantification in Visual Computing, Stuttgart Germany, 10/18*

Some Challenges of Color THINK Conference 2017, Santa Cruz CA 11/17

Data Visualization as a Driver for Visual Cognition Research 2017 Workshop on Object Perception, Attention, and Memory (OPAM), Vancouver BC, 11/17

Handson: Visualization

2017 IRE Cross Border Reporting Workshop, Vancouver BC, 5/17

I sense a great disturbance in the Force: The replication crisis in psychology & its possible repercussions for the future of vis evaluation; or, What's making me lose sleep lately

^{*}Expenses paid.

Panel: On the Future of Evaluation and BELIV, BELIV 2016, Baltimore MD, 10/16

Scales and Methods of Engagement VA Tool Users and Universities Panel, CANVAS 2014 Workshop, Vancouver BC, 8/14

Variant View: Visualizing Sequence Variants in their Gene Context BioIT World Conference, Boston MA, 4/14*

Visualization for Hackers: Why It's Tricky, and Where to Start Hackers On Planet Earth (HOPE) X, New York NY, 7/14

Dimensionality Reduction From Three Angles SIAM Data Mining Workshop on Exploratory Data Analysis, Philadelphia PA, 4/14

Visualization: Why It's Tricky, Where To Start
Programming Knowledge Representation Workshop, Bellairs Barbados, 2/14

Visualization Principles Cytoscape Symposium on Network Visualization, San Francisco CA, 12/12

Applying Information Visualization Principles to Biological Network Displays Human Vision and Electronic Imaging (HVEI) 2011, San Francisco CA, 1/11

MulteeSum: A Tool for Comparative Spatial and Temporal Gene Expression Data THINK Conference 2010, Santa Cruz CA, 11/10

Visualization and Biology: Fertile Ground for Collaboration bigDATA Workshop, University of British Columbia, 5/10

Visualization Process and Collaboration
Dagstuhl Scientific Visualization Workshop, Wadern Germany, 6/09

Biology is Destiny: Of Graphs and Genes Asilomar Microcomputer Workshop 2009, Monterey CA, 4/09

Big Data, Visualization, and Systems Biology THINK Conference 22, Santa Cruz CA, 11/08

Research Cycles, Collaboration, and Visualization VIEW Workshop, Leiden Netherlands, 6/07 *

When To Walk Away: Questions To Ask In Infovis Projects
Dagstuhl Seminar on Information Visualization, Wadern Germany, 5/07

Scalable Drawing of Trees and Graphs Joint Statistical Meeting (Invited Session), Seattle WA, 8/06

LiveRAC: Live Reorderable Accordion Drawing AT&T Labs University Symposium, Florham Park NJ, 8/06

^{*}Expenses paid.

TopoLayout: Layout of Graphs by Topological Feature THINK Conference 21, Santa Cruz CA, 11/05

Scalable Visual Comparison of Biological Trees and Sequences PaRISTIC, Bordeaux France, 11/05*

Steerable, Progressive Multidimensional Scaling Asilomar Microcomputer Workshop 2005, Monterey CA, 4/05

Scalable Visualization with Accordion Drawing Vancouver Studies in Cognitive Science 2005, Vancouver BC, 2/05

State of the Field: InfoVis

NSF/NIH Visualization Research Challenges Fall Workshop, Bethesda MD, 9/04.

Scalable Visual Comparison of Biological Trees and Sequences Mathematical Foundations of Scientific Visualization, Computer Graphics, and Massive Data Exploration, Banff AB, 5/04. Asilomar Microcomputer Workshop, Monterey CA, 4/04

Human Perception Tidbits THINK Conference 19, Fresno CA, 11/03

Visual Comparison of Large Evolutionary Trees.

Quintessence: The Clumpy Matter of Art, Science and Math Visualization, Banff AL, 9/02

Information Visualization for Systems People Usenix 2002, Monterey CA, 6/02

Workshop Participant

National Science Foundation Assembling the Tree of Life Workshop II, Davis CA, 10/00

Video Topology

Asilomar Microcomputer Workshop, Asilomar CA, 4/00

Interactive Navigation of Large Graphs and Networks. Workshop on Data Visualization, Memphis TN, 6/99

Interactive Navigation of Large Networks. Asilomar Microcomputer Workshop, Asilomar CA, 4/99

Guaranteed Frame Rate Drawing for Interactive Navigation of Large Graphs. DIMACS Workshop on External Memory Algorithms and/or Visualization, Rutgers NJ, 5/98

H3: Laying Out Large Directed Graphs in 3D Hyperbolic Space THINK Conference 13, Santa Rosa CA, 11/97

Information Visualization with VRML World Movers, San Francisco CA, 2/97

^{*}Expenses paid.

Visualizing the Global Topology of the MBone Workshop on Software and Mathematical Visualization, Princeton NJ, 6/96

Dimension, Space, Information Visualization and the Web Imagina 96, Monte Carlo, Monaco, 2/96*

Integrating 3D Visualization with the World Wide Web International Workshop on Visualization and Mathematics, Technical University of Berlin (SFB288), Berlin Germany, 6/95

Visualization Videos talk

Mathematical Visualization Using Geomview demo

Fourth MSI Workshop on Computational Geometry, Cornell University, Ithaca NY, 10/94

Mathematical Visualization Using Geomview. Regional Geometry Institute, Smith College, Amherst MA, 7/93

Introduction to Geomview.
Second MSRI Conference on Geometric Visualization,
Mathematical Sciences Research Institute, Berkeley CA, 10/92 (with Mark Phillips and Stuart Levy)

(f) Peer-Reviewed Tutorials

I list combined with all tutorials in Section 8d on Continuing Education Activities.

(g) Peer-Reviewed Panels

Panel: Our History and Future Innovation VIS 21, virtual, 10/21

Panel: Reflection on Reflection in Design Studies VIS 17, Phoenix AZ, 10/17

Panel: Pathways for Theoretical Advances in Visualization (won Best Panel award) VIS 16, Baltimore MD, 10/16

Teaching Across the Researcher-Practitioner Gap Vis, The Next Generation: Teaching Across the Researcher-Practitioner Gap VIS 15, Chicago IN, 10/15

Evaluation, When and How Panel: How Much Evaluation is Enough? VIS 13, Atlanta GA, 10/13

Grassroots Reproducability: Just Do It!

Panel: Reproducible Visualization Research: How Do We Get There? VisWeek 12, Seattle WA, 10/12

*UBC Grad Course in InfoVis*Panel: Perspectives on Teaching Data Visualization **(won Best Panel award)**VisWeek 10, Salt Lake City UT, 10/10

^{*}Expenses paid.

Outward and Inward Grand Challenges

Panel: Grand Challenges in Information Visualization (won Best Panel award)

InfoVis 08, Columbus OH, 10/08

Mathematics For Visualization versus Visualization Of Mathematics

Panel: The Mathematical Concepts Beneath Contemporary Visualization

Visualization 07, Sacramento CA, 10/07

A Panorama of Publication Pitfalls

Panel: Publishing Your Visualization Research

Visualization 06 Doctoral Colloquium, Baltimore MD, 10/06

Panel: How to Get Your Paper Published VIEW Workshop, Leiden Netherlands, 6/07 SFU (Guest Lecture), Burnaby BC, 10/07

Visualization Careers: Academia Panel: Visualization Careers

Visualization 06 Doctoral Colloquium, Baltimore MD, 10/06

Information and Scientific Visualization: Separate but Equal

Panel: Information and Scientific Visualization: Separate but Equal or Happy Together At Last

Visualization 03, Seattle WA, 10/03

In Search Of: Prescriptive Advice for Visualization Panel: Visualization Needs More Visual Design! Visualization 99, San Francisco CA, 10/99

Panel: Mathematical Visualization: Standing at the Crossroads

Moderator and co-organizer (won Best Panel award)

Visualization 96, San Francisco CA, 11/96

3D Graphics through the Internet

Panel: 3D Graphics through the Internet: A Shootout

SIGGRAPH 95, Los Angeles CA, 8/95

Visualization through the World Wide Web with Geomview, Cyberview, W3Kit, and WebOOGL

Panel: Visualization and the Web

World Wide Web Fall 94, Chicago IL, 10/94

(h) Conference Participation (Organizer, Keynote Speaker, etc.)

Steering/Executive Committees

• VIS Restructuring Committee, VIS, 2016–2019

Committee struck by the VEC to investigate whether VAST, InfoVis, and SciVis should merge, and whether to handle associated events differently.

• Executive Committee (VEC) Chair, VIS, 2012–2017

VIS is the major umbrella event in our area with the three major conferences VAST, InfoVis, and SciVis and additional symposia and workshops including BioVis, LDAV, and VizSec.

• **Steering Committee**, InfoVis, 2010–2014, 2015–2017

(IEEE Conference on Information Visualization)

• Steering Committee Chair, InfoVis, 2014–2015

- Executive Committee Member, VisWeek, 2011–2012
- **Steering Committee**, BioVis (IEEE Symposium on Biological Data Visualization), 2012–2013 I was a founding member of the SC for this new venue.

Papers Chair

- Overall Papers Co-Chair, IEEE VIS 2024 Oversight & coordination of 12 Area Papers Chairs, 150 PC members, 550 submissions, Florida
- Overall Papers Co-Chair, IEEE VIS 2023 Oversight & coordination of 12 Area Papers Chairs, 200 PC members, 500 submissions, Melbourne
- Papers Co-Chair, EuroVis 2010 (Eurographics/IEEE VGTC Symposium on Visualization), Bordeaux
- Papers Co-Chair, EuroVis 2009, Berlin
- Papers Co-Chair, InfoVis 2004 (IEEE Symposium on Information Visualization), Austin
- Papers Co-Chair, InfoVis 2003, Seattle

Organizer

- Best Papers Committee, VIS 2022
- Test of Time Committee, InfoVis 2021
- Best Papers Committee, PacificVis 2016
- Co-Organizer, Dagstuhl Seminar: Bridging Information Visualization with Machine Learning, 2015, Germany
- Best Papers Chair, InfoVis 2006
- Best Papers Committee, InfoVis 2005
- Massive Data Thrust Co-Organizer, Mathematical Foundations of Scientific Visualization, Computer Graphics, and Massive Data Exploration Workshop, 2004, Banff
- Posters Co-Chair, InfoVis 2002
- Posters Chair, InfoVis 2001 I began the posters program as the inaugural chair
- Co-Organizer, AMW 2002 (Asilomar Microcomputer Workshop)
- Co-Organizer, AMW 2001
- Web Chair, InfoVis 1999-2002

Conference participation in the form of keynote addresses, peer-reviewed panels, and peer-reviewed tutorials is listed in Section 9.

10. SERVICE TO THE UNIVERSITY

(a) Memberships on committees, including offices held and dates

Departmental Committees, Chair

2019-2023	Communications
2017-2018	Space
2014-2017	Faculty Affairs
2014-2016	Faculty Recruiting
2011-2013	Peer Teaching Evaluation
2004-2008	FoWCS: Focus On Women in Computer Science

Departmental Committees, Member

2023	Workload
2023	Ad Hoc Spousal Faculty Recruiting
2021	Faculty Recruiting
2020	Ad Hoc Workload
2017-2018	Communications
2016-2017	Faculty Recruiting
2012-2013	Faculty Affairs
2010-2011	Graduate Recruiting
2010-2011	Space
2009-2010	Faculty Affairs
2009-2010	Faculty Recruiting
2007-2008	Faculty Recruiting
2005-2008	Brown Bag Facilitator
2003	Ad Hoc Administrative Manager Search
2003-2004	ICICS Distinguished Lecture
2002-2006	Curriculum

(b) Other service, including dates

Dean's Advisory Committee

• 2021-2023, Chair

UBC Awards Adjudication

- 2019, 2021, 2022 Google Fellowships
- 2021, Distinguished University Scholar

Departmental Outreach Talks

- February 2020
- January 2012
- February 2006
- March 2005

Chair, Doctoral Proposal Defense

• Aug 2014, Mikhail Bessmeltsev

Examiner, University Doctoral Exam

- January 2023, Federico Lingua
- August 2017, Jimin Joy
- July 2015, Dutch Meyer
- July 2011, Thomas Hentrich

Chair, University Doctoral Exam

- April 2010, Victor F. Sanchez Silva
- August 2009, Alex Wang
- August 2009, Alex Wang

11. SERVICE TO THE COMMUNITY

- (a) Memberships on scholarly committees, including offices held and dates
 - 2014–2017, IEEE VGTC Executive Committee Member
 - 2004–2008, IEEE VGTC (Visualization and Graphics Technical Committee)
 Executive Committee Member At Large

I list additional committee memberships associated with the organization of conferences or workshops in Section 9(h), and those associated with the reviewing of papers in Section 11(d).

(b) Editorships (list journal and dates)

Book Series Editorships

• Editor 2014–cont: AK Peters Visualization Series, CRC/Routledge.

Guest Editorships

- IEEE TVCG (Trans. Visualization and Computer Graphics) 10:4, January 2024 (special issue, Proc. VIS 23). with 14 others)
- Eurographics Computer Graphics Forum 29:3, June 2010 (special issue, Proc. EuroVis 10). (with Guy Melançon and Daniel Weiskopf)
- Eurographics Computer Graphics Forum 28:3, June 2009 (special issue, Proc. EuroVis 09). (with Hans-Christian Hege and Ingrid Hotz)
- Information Visualization, Palgrave. 4:2, Summer 2005. (with Matt Ward)
- IEEE TVCG (Trans. Visualization and Computer Graphics) 11:2, July/August 2005. (with Matt Ward)
- Information Visualization, Palgrave. 3:2, Summer 2004. (with Stephen North)
- IEEE TVCG (Trans. Visualization and Computer Graphics) 10:4, July/August 2004. (with Stephen North)
- IEEE CG&A (Computer Graphics and Applications), Special Issue on Information Visualization, Jan/Feb 2002.

(c) Program Committees

- VIS: IEEE Conf. Visualization 2021
- CHI: ACM Conf. Computer-Human Interaction 2020-2022
- EuroVis: Eurographics/IEEE VGTC Symposium on Visualization 2005-2008, 2011-2014, 2017, 2021-2022
- InfoPlus: Information Plus 2021
- InfoVis: IEEE Conf on Information Visualization 2000-2004, 2006-2007, 2009-2010, 2012-2014, 2016-2017, 2019-2020
- Graph Drawing: 2015, 2020
- BELIV: BEyond time and errors: novel evaLuation methods for Information Visualization 2010, 2012, 2014, 2016
- EuroVis Short Papers: 2015
- BioVis: IEEE Symp. on Biological Visualization 2014-2015
- ISMB: Intl. Conf. on Intelligent Systems in Molecular Biology 2012
- Vis: IEEE Visualization 2003, 2009
- MediVis: Conference on Medical/Biomedical Visualization 2007
- I3D: Symposium on Interactive 3D Graphics 2005
- GI: Graphics Interface 2003-2004
- ISMA: Internet Statistics and Metrics Analysis Network Visualization 1999
- DIMACS Workshop on External Memory Algorithms and Visualization 1998
- VRML: Virtual Reality Modelling Language Symposium 1997
- VisMath: Visualization and Mathematics 1997

(d) Reviewer (journal, agency, etc., including dates)

Funding agencies

- NSERC Discovery Grant Panel: 2020-2023
- MITACS: Mathematics of Information Technology and Complex Systems 2009-10, 2018-22
- NSERC: Natural Sciences and Engineering Research Council 2003-2005, 2007, 2010-11, 2013, 2019-2022
- FWF: Austrian Science Fund 2006, 2010, 2013, 2015-2017, 2020
- NWO: Netherlands Organisation for Scientific Research, 2011
- ERC: European Research Council 2010
- US NSF: United States National Science Foundation 2007, 2009
- FQRNT: Fonds Québécois de la Recherche sur la Nature et les Technologies 2009
- UK EPSRC: United Kingdom Engineering and Physical Sciences Research Council 2007
- UC-MICRO: Univ. California Microelectronics Innovation and Computer Research Opportunities 2006

Journals

- TVCG: IEEE Transactions on Visualization and Computer Graphics 2002-2014, 2016-2019, 2022, 2023
- IDJ: Information Design Journal 2022
- PSPI: Psychological Science in the Public Interest 2020
- CG&A: IEEE Computer Graphics and Applications 1996-1997, 2003-2005, 2007, 2009, 2011, 2019
- TIIS: IEEE Transactions on Interactive Intelligent Systems 2020
- JGAA: Journal of Graph Algorithms and Applications, 2016
- IVS: Information Visualization Journal 2002, 2004, 2005, 2008-2010, 2014
- F1000: F1000 Research 2014
- CG: Computers&Graphics 2010, 2013
- Neurocomputing, 2013
- PLoSONE: Public Library of Science ONE 2011-2012
- IJCM: International Journal of Computer Mathematics 2011-2012
- Computer: IEEE Computer 2011-12
- Bioinformatics: BMC Bioinformatics 2005, 2008, 2011
- EE: Ecology and Evolution 2011
- IJHCS: International Journal of Human-Computer Studies 2009-2010
- CGF: Computer Graphics Forum 2010
- TOG: IEEE Transactions on Graphics 2009
- ACM Computing Surveys 2004, 2006-2007
- CACM: Communications of the ACM 2007
- ToCHI: IEEE Transactions on Computer Human Interaction 2006
- AMM: American Mathematical Monthly 2007
- TIR: Transactions on Internet Research 2006
- FM: Field Methods 2006
- TAP: IEEE Transactions on Applied Perception 2003

Conferences

- SIGGRAPH Papers 1999-2001, 2004-2007, 2010-2011, 2022
- VIS: IEEE Conf. Visualization 2021
- SIGCHI Papers 2005-2007, 2009-2018
- BioVis Contest Judge, 2011
- InfoVis: IEEE Conf. Information Visualization 2011
- UIST: User Interface Software and Technologies 1999, 2001, 2006, 2010
- SciVis/Vis: IEEE Conf. (Scientific) Visualization 1996, 2005-2007, 2010, 2017

- SIGGRAPH Asia Papers 2009-2010
- VAST: IEEE Conf. Visual Analytics Science and Technology 2006-2007, 2009-2010
- Eurographics 2003, 2007, 2009
- WABI: Workshop on Algorithms in Bioinformatics 2009
- SOCG: ACM Symposium on Computational Geometry 2009
- SIGGRAPH Sketches 2006-2007
- VMLS: Visualization in Medicine and Life Sciences 2006
- SIGGRAPH Courses 2002-2006
- InfoVis: IEEE Symp. Information Visualization 1997-2000, 2005
- NPAR: Non-Photorealistic Animation and Rendering Symposium 2004
- VDA: Visual Data Analysis 2003
- SIGKDD: Knowledge Discovery and Data Mining 2003
- I3D: ACM Symposium on Interactive 3D Graphics 2000
- VisSym: Joint Eurographics/IEEE Symposium on Visualization 2000
- VRML: Virtual Reality Modelling Language Symposium 1998
- SCG Video: Symposium on Computational Geometry (video proceedings) 1996

Publishers

- Morgan Kaufmann books 2009-2010
- AK Peters books 2006-2007, 2009
- Springer-Verlag books 2005

(e) External examiner (indicate university and dates)

Student Name	Year	Institution	Country	Supervisor	Examined
Sarah Goodwin	2014	City University London	UK	Jason Dykes	In person
Michael Sedlmair	2010	LMU Munich	Germany	Andreas Butz	By Skype
Danny Holten	2009	TU Eindhoven	Holland	Jarke J. van Wijk	In person
*	2007	*	Australia	*	By report
Jerôme Thièvre	2006	INA / Univ. de Montpellier	France	Mountaz Hascoët	In person
François Boutin	2005	Université de Montpellier	France	Guy Melançon	In person
Fabien Jourdan	2004	Université de Montpellier	France	Guy Melançon	In person
David Auber	2002	Université de Bordeaux I	France	Maylis Deleste	In person

^{*} Identifying information elided in keeping with institution's confidentiality policy.

(f) Habilitation jury (indicate university and dates)

Name	Year	Institution	Country	Examined
Petra Isenberg	2022	Université Paris Saclay	France	virtual

- (g) Consultant (indicate organization and dates)
 - Lytix, 2010-2012
- (h) Other service to the community

Advisory Boards and Site Visits

• INRIA Research Center Evaluation, 2023

- Data Visualization Society Advisory Council, 2019–cont
- Data Literacy LLC Advisory Board, 2019–cont
- Degree Program Review, Northeastern University, 2021
- National Resource for Network Biology External Advisory Council, 2011–cont. Site visits May 2011
 San Diego, Dec 2012 San Francisco, Jul 2014 Boston, Jul 2018 Chicago.
- Microsoft-INRIA Joint Research Center Site visit June 2010 Paris France.

12. AWARDS AND DISTINCTIONS

- (a) Awards for Scholarship (indicate name of award, awarding organizations and date)
 - 10-Year Test of Time Award, IEEE InfoVis 2019, 2022, 2023
 - Best Paper Award Honorable Mention: CHI 2023
 - IEEE Fellow, 2023
 - CHCCS/SCDHM Achievement Award of the Canadian Human-Computer Communications Society, 2021
 - Best Paper Award, Honorable Mention: IEEE InfoVis 2009, 2012, 2017, 2021
 - Visualization Academy Member, 2019
 - UBC Killam Research Prize 2019
 - IEEE Senior Member, 2018
 - Best Panel Award: IEEE VIS/Visualization 1996, 2008, 2010, 2016
 - IEEE VGTC Visualization Technical Achievement Award 2015
 - Best Paper Award, Honorable Mention (2nd Best): EuroVis 2009
 - InfoVis Contest, Overall First Place Winner: IEEE InfoVis 2003
 - Microsoft Research PhD Fellowship 1998-2000
 - National Science Foundation Graduate Research Fellowship (USA) 1995-1998
- (b) Awards for Service (indicate name of award, awarding organizations and date)
 - IEEE VGTC VIS Service Award, 2023
 - Honorable Reviewer Award, EuroVis, 2022
 - IEEE Meritorious Service Award, 2018
- (c) Other Awards
 - UBC Killam Teaching Award Nomination, 2021

13. OTHER RELEVANT INFORMATION (Maximum One Page)

Publication Strategy

My research is primarily published in visualization venues. The strongest conferences have at least as much impact as the top journals as a means of disseminating research results in this area. Most of the top-tier visualization conferences now publish their proceedings as special issues of journals, with a stringent two-phase peer review process and acceptance rates around 25% - 30%.

• TVCG/VIS (IEEE Transactions on Visualization and Computer Graphics) is the very top journal for visualization. IEEE VIS is the premiere conference in visualization. Papers from IEEE VIS (formerly VAST/InfoVis/SciVis) are published as an annual special issue of TVCG, with acceptance rates of under 25%. Papers published in standard issues of TVCG can be presented at IEEE VIS. In 2021 the three previously separate conferences of InfoVis, VAST, and SciVis were fully unified into IEEE VIS.

InfoVis (IEEE Conference on Information Visualization) had been published through TVCG since 2006, and was a symposium from 1995-2006. Prior to 2006, a small set of best papers was published in TVCG and IVS; afterwards, there were one best paper and two honorable mention awards annually. **VAST** (IEEE Conference on Visual Analytics Science and Technology) had been published through TVCG since 2013, and was a symposium from 2006 to 2009. **SciVis** (IEEE Conference on Scientific Visualization) was previously named IEEE Visualization from 1990-2011, and had been published through TVCG since 2006.

- EuroVis (Eurographics/IEEE VGTC Symposium on Visualization) is also a very strong venue. The proceedings is published as a special issue of Computer Graphics Forum. The review process is similar to InfoVis/VIS, with acceptance rates around 30% in recent years. It has always been an integrated conference accepting all subfields of visualization.
- CHI (ACM Conference on Human Factors in Computing Systems) is the top conference in the related field of human-computer interaction, and publishes many visualization-related papers each year. Acceptance rates are in the 15-25% range. Its proceedings are not published as a special issue.
- **PacificVis** (IEEE Pacific Visualization Symposium) is a moderate-impact regional venue with increasing strength.
- **BELIV** (Workshop on evaluation and BEyond methodoLogIcal approaches for Visualization) is an important force for methodological introspection, with an impact higher than might be obvious from bibliometrics alone given its fairly relaxed acceptance rates.
- **IVS** (Information Visualization Journal, Sage/Palgrave) is the only journal for infovis specifically.

Occasionally a domain scientist collaborator includes my students and/or me as authors on papers published in their own literature, indicating that they consider the visualization system a critical part of their scientific work. I count these instances as a strong sign of success.

14. REFEREED PUBLICATIONS

The standard authorship order is that students and postdocs are listed first and faculty last, except in unusual circumstances. Names of students or postdocs that I supervised are in bold. Names of students I taught where course projects led to publications are in italics. My h-index was 51 and total citation count over 14K as of July 2024. Citation counts over 100 or 1000 for works are from Google Scholar as of that date.

(a) Journals

J56: Katelynn E. Boerner, Unma Desai, Jessica Luu, Karon E. MacLean, Tamara Munzner, Haley Foladare, Jane Shen, Javed Gill, Tim F. Oberlander. "Making Data the Drug": A Pragmatic Pilot Feasibility Randomized Crossover Trial of Data Visualization as an Intervention for Pediatric Chronic Pain. Children 10 (8), 1355, 2023.

J55: Katelynn E. Boerner, Unma Desai, Karon E. MacLean, Tamara Munzner, Haley Foladare, Javed Gill, Tim F. Oberlander. Data visualization as an intervention for pediatric chronic pain: a pilot feasibility study protocol for a randomized controlled crossover trial. Pilot and feasibility studies 8(223), 2022.

J54: **Zipeng Liu**, Yang Wang, **Jürgen Bernard**, and Tamara Munzner. Visualizing Graph Neural Networks with CorGIE: Corresponding a Graph to Its Embedding. *IEEE Transactions on Visualization and Computer Graphics (TVCG)*, 28(6):2500-2516, 2022.

- J53: Emily Hindalong, Jordon Johnson, Giuseppe Carenini, and Tamara Munzner. Abstractions for Visualizing Preferences in Group Decisions. *PACM HCI (Proc. CSCW)*, 6(CSCW1):49, 2022.
- J52: **Michael Oppermann** and Tamara Munzner. VizSnippets: Compressing Visualization Bundles Into Representative Previews for Browsing Visualization Collections. *IEEE Transactions on Visualization and Computer Graphics (Proc. VIS 2021)* 28(1):747-757, 2022. **Honorable Mention for Best Paper Award.**
- J51: **Jürgen Bernard**, Marco Hutter, Matthias Zeppelzauer, Michael Sedlmair, Tamara Munzner. A Taxonomy of Property Measures to Unify Active Learning and Human-centered Approaches to Data Labeling. *ACM Transactions on Interactive Intelligent Systems (TiiS)* 11 (3-4), 1-42 2021.
- J50: **Anamaria Crisan, Shannah E. Fisher**, Jennifer L. Gardy, Tamara Munzner. GEViTRec: Data Reconnaissance Through Recommendation Using a Domain-Specific Visualization Prevalence Design Space. *IEEE Transactions on Visualization and Computer Graphics (TVCG)* 28(12):4855-4872, 2022.
- J49: **Jürgen Bernard**, Marco Hutter, Matthias Zeppelzauer, Michael Sedlmair, Tamara Munzner. ProSeCo: Visual analysis of class separation measures and dataset characteristics. *Computers & Graphics* 96:48-60 2021.
- J48: **Steve Kasica**, Charles Berret, and Tamara Munzner. Table Scraps: An Actionable Framework for Multi-Table DataWrangling From An Artifact Study of Computational Journalism. *IEEE Transactions on Visualization and Computer Graphics (Proc. InfoVis 2020)* 27(2):957-966 2021.
- J47: **Michael Oppermann**, Robert Kincaid, and Tamara Munzner. VizCommender: Computing Text-Based Similarity in Visualization Repositories for Content-Based Recommendations. *IEEE Transactions on Visualization and Computer Graphics (Proc. VAST 2020)* 27(2):495–505, 2021.
- J46: **Michael Oppermann** and Tamara Munzner. Ocupado: Visualizing Location-Based Counts Over Time Across Buildings. Computer Graphics Forum (Proc. EuroVis 2020) 39(3):127–138 2020[
- J45: **Zipeng Liu**, Takayuki Itoh, **Jessica Q. Dawson**, and Tamara Munzner. The Sprawlter Graph Readability Metric: Combining Sprawl and Area-aware Clutter. IEEE Transactions on Visualization and Computer Graphics (TVCG), 2020.
- J44: **Kimberly Dextras-Romagnino** and Tamara Munzner. Segmentifier: Interactive Refinement of Clickstream Data. Computer Graphics Forum (Proc. EuroVis 2019), 38(3):623–634 2019.
- J43: **Zipeng Liu**, Shing Hei Zhan, and Tamara Munzner. Aggregated Dendrograms for Visual Comparison Between Many Phylogenetic Trees. IEEE Trans. Visualization and Computer Graphics (TVCG) 26(9):2732-2747 2019.
- J42: **Anamaria Crisan**, Jennifer L. Gardy, Tamara Munzner. A systematic method for surveying data visualizations and a resulting genomic epidemiology visualization typology: GEViT. Bioinformatics, bty832, 35(10):1668–1676 2019.
- J41: **Anamaria Crisan**, Jennifer L. Gardy, Tamara Munzner. Adjutant: an R-based tool to support topic discovery for systematic and literature reviews. Bioinformatics Application Note 35(6):1070-1072, 2019.
- J40: **Georges Hattab**, Veit Wiesmann, Anke Becker, Tamara Munzner, and Tim W. Nattkemper. A Novel Methodology for Characterizing Cell Subpopulations in Automated Time-lapse Microscopy. *Frontiers in in Bioengineering and Biotechnology* 28;6:17, 2018.
- J39: **Anamaria Crisan**, Geoff McKee, Tamara Munzner, Jennifer L. Gardy. Evidence-based design and evaluation of a whole genome sequencing clinical report for the reference microbiology laboratory. *PeerJ* 6:e4218, 2018.
- J38: Heidi Lam, Melanie Tory, and Tamara Munzner. Bridging From Goals to Tasks with Design Study Analysis Reports. *IEEE Trans. Visualization and Computer Graphics (Proc. InfoVis 2017)* 24(1):435–445, 2018. **Honorable Mention for Best Paper Award.**

- J37: **Matthew Brehmer**, Benjamin Bach, Bongshin Lee, Nathalie Henry Riche, and Tamara Munzner. Timelines Revisited: A Design Space and Considerations for Expressive Storytelling. *IEEE Transactions on Visualization and Computer Graphics (TVCG)*, 23(9):2151 2164, 2017. (over 100 cites)
- J36: **Matthew Brehmer**, Jocelyn Ng, Kevin Tate, and Tamara Munzner. Matches, Mismatches, and Methods: Multiple-View Workflows for Energy Portfolio Analysis. *IEEE Trans. Visualization and Computer Graphics (Proc. IEEE InfoVis 2015)* 22(1):449–458, 2016.
- J35: **Johanna Fulda**, **Matthew Brehmer**, and Tamara Munzner. TimeLineCurator: Interactive Authoring of Visual Timelines from Unstructured Text. *IEEE Trans. Visualization and Computer Graphics (Proc. IEEE VAST 2015)* 22(1):300–309, 2016. (over 100 cites)
- J34: B. Renoust, G. Melançon, T. Munzner. Detangler: Visual Analytics for Multiplex Networks. *Computer Graphics Forum (Proc. EuroVis 2015)* 34(3):321–330, 2015.
- J33: **Jessica Dawson**, Tamara Munzner, and Joanna McGrenere. A Search Set Model of Path Tracing in Graphs. *Information Visualization*, 14(4):308338, 2015.
- J32: **Matthew Brehmer, Stephen Ingram**, Jonathan Stray, and Tamara Munzner. Overview: The Design, Adoption, and Analysis of a Visual Document Mining Tool For Investigative Journalists. *IEEE Trans. Visualization and Computer Graphics (Proc. InfoVis 2014)*, 20(12):2271-2280, 2014. (over 100 cites)
- J31: **Stephen Ingram** and Tamara Munzner. Dimensionality Reduction for Documents with Nearest Neighbor Queries. *Neurocomputing (Special Issue for Workshop on Visual Analytics using Multidimensional Projections (VAMP) held at EuroVis 2013)*, Volume 150 Part B, p 557-569, 2015.
- J30: **Miriah Meyer**, **Michael Sedlmair**, and Tamara Munzner. The Nested Blocks and Guidelines Model. *Information Visualization*, 14(3) 2015. [journal version of C22] (over 100 cites)
- J29. **Michael Sedlmair**, Tamara Munzner, and Melanie Tory. Empirical Guidance on Scatterplot and Dimension Reduction Technique Choices. *IEEE Trans. Visualization and Computer Graphics* (*Proc. InfoVis 2013*), 19(12): 2634-2643, 2013. (*over 100 cites*)
- J28. **Matthew Brehmer** and Tamara Munzner. A Multi-Level Typology of Abstract Visualization Tasks. *IEEE Trans. Visualization and Computer Graphics (Proc. InfoVis 2013)*, 19(12): 2376-2385, 2013. (over 100 cites)
- J27. **Joel A. Ferstay**, Cydney B. Nielsen, and Tamara Munzner. Variant View: Visualizing Sequence Variants in their Gene Context. *IEEE Trans. Visualization and Computer Graphics (Proc. InfoVis 2013)*, 19(12): 2546-2555, 2013.
- J26. **Michael Sedlmair**, **Miriah Meyer**, and Tamara Munzner. Design Study Methodology: Reflections from the Trenches and the Stacks. *IEEE Trans. Visualization and Computer Graphics (Proc. InfoVis 2012)*, 18(12):2431-2440, 2012. **Honorable Mention for Best Paper Award.** (over 1000 cites)
- J25. **Michael Sedlmair**, Annika Frank, Tamara Munzner, and Andreas Butz. RelEx: Visualization for Actively Changing Overlay Network Specifications. *IEEE Trans. Visualization and Computer Graphics (Proc. InfoVis 2012)*, 18(12):2729-2738, 2012.
- J24. **Michael Sedlmair**, Andrada Tatu, Tamara Munzner, and Melanie Tory. A Taxonomy of Visual Cluster Separation Factors. *Computer Graphics Forum (Proc. EuroVis 2012)*, 31(3):1335-1344, 2012.
- J23. Maryam Booshehrian, Torsten Möller, Randall M. Peterman, and Tamara Munzner. Vismon: Facilitating Analysis of Trade-Offs, Uncertainty, and Sensitivity In Fisheries Management Decision Making. *Computer Graphics Forum (Proc. EuroVis 2012)*, 31(3):1235-1244, 2012. **Runner Up for Best Paper Award (Second Best Paper)**. (over 100 cites)
- J22. **Miriah Meyer**, Tamara Munzner, Angela DePace and Hanspeter Pfister. MulteeSum: A Tool for Comparative Temporal Gene Expression and Spatial Data. *IEEE Trans. Visualization and Computer Graphics (Proc. InfoVis 2010)* 16(6):908-917, 2010.

- J21. **Daniel Archambault**, Tamara Munzner, and David Auber. Tugging Graphs Faster: Efficiently Modifying Path-Preserving Hierarchies for Browsing Paths. *IEEE Trans. Visualization and Computer Graphics (TVCG)* 17(3):276-289, 2011. [30% new material beyond C18], **invited as a best paper from IEEE PacificVis 2010**.
- J20. **Miriah Meyer**, Bang Wong, Tamara Munzner, Mark Styczynski and Hanspeter Pfister. Pathline: A Tool for Comparative Functional Genomics. *Computer Graphics Forum (Proc. EuroVis 2010)*, 29(3):1043-1052, 2010. (over 100 cites)
- J19. Tamara Munzner. A Nested Model for Visualization Design and Validation. *IEEE Trans. Visualization and Computer Graphics (Proc. InfoVis 09)*, 15(6):921-928, 2009. (over 1000 cites)
- J18. **Miriah Meyer**, Tamara Munzner and Hanspeter Pfister. MizBee: A Multiscale Synteny Browser. *IEEE Trans. Visualization and Computer Graphics (Proc. InfoVis 09)*, 15(6):897-904, 2009. **Honorable Mention for Best Paper Award.** (over 100 cites)
- J17. **Stephen Ingram**, Tamara Munzner, and Marc Olano. Glimmer: Multilevel MDS on the GPU. *IEEE Trans. Visualization and Computer Graphics (TVCG)*, 15(2):249-261, Mar/Apr 2009. (over 100 cites)
- J16. David J Lynn, Geoffrey L Winsor, Calvin Chan, Nicolas Richard, Matthew R Laird, **Aaron Barsky**, Jennifer L Gardy, Fiona M Roche, Timothy H W Chan, Naisha Shah, Raymond Lo, Misbah Naseer, Jaimmie Que, Melissa Yau, Michael Acab, Dan Tulpan, Matthew D Whiteside, Avinash Chikatamarla, Bernadette Mah, Tamara Munzner, Karsten Hokamp, Robert E W Hancock, and Fiona S L Brinkman. InnateDB: facilitating systems-level analyses of the mammalian innate immune response. *Molecular Systems Biology* 4:218 2008. (over 100 cites)
- J15. **Aaron Barsky**, Tamara Munzner, Jennifer L. Gardy, and Robert Kincaid. Cerebral: Visualizing Multiple Experimental Conditions on a Graph with Biological Context. *IEEE Trans. Visualization and Computer Graphics (Proc. InfoVis 2008)* 14(6):1253-1260, 2008. (over 100 cites)
- J14. **Daniel Archambault**, Tamara Munzner, and David Auber. GrouseFlocks: Steerable Exploration of Graph Hierarchy Space. *IEEE Trans. Visualization and Computer Graphics (TVCG)*, 14(4):900-913, 2008. (over 100 cites)
- J13. **Melanie Tory**, David W. Sprague, Fuqu Wu, Wing Yan So, and Tamara Munzner. Spatialization Design: Comparing Points and Landscapes. *IEEE Trans. Visualization and Computer Graphics* (*Proc. InfoVis 2007*) 13(6):1262-1269, 2007.
- J12. **Heidi Lam**, Robert Kincaid, and Tamara Munzner. Overview Use in Multiple Visual Information Resolution Interfaces. *IEEE Trans. Visualization and Computer Graphics (Proc. InfoVis 2007)* 13(6):1278-1285, 2007.
- J11. **Aaron Barsky**, Jennifer L. Gardy, Robert E.W. Hancock, and Tamara Munzner. Cerebral: a Cytoscape plugin for layout of and interaction with biological networks using subcellular localization annotation. *Bioinformatics Journal* 23(8):1040-1042, 2007. (over 100 cites)
- J10. **Dan Archambault**, Tamara Munzner, and David Auber. TopoLayout: Multi-Level Graph Layout by Topological Features. *IEEE Trans. Visualization and Computer Graphics (TVCG)*, 13(2):305-317, 2007. (over 100 cites)
- J9. **Dan Archambault**, Tamara Munzner, and David Auber. Smashing Peacocks Further: Drawing Quasi-Trees from Biconnected Components. *IEEE Trans. Visualization and Computer Graphics (Proc. InfoVis 2006)*, 12(5):813-820, 2006.
- J8. **James Slack** and Tamara Munzner. Composite Rectilinear Deformation for Stretch and Squish Navigation. *IEEE Trans. Visualization and Computer Graphics (Proc. Vis 2006)*, 12(5):901-908, 2006.
- J7. Robert Moorhead, Chris Johnson, Tamara Munzner, Hanspeter Pfister, Penny Rheingans, and Terry S. Yoo. Visualization Research Challenges: A Report Summary. *IEEE Computing in Science & Engineering* 8(4):66-73 (July/Aug) 2006. [summary of B1, similar in content to J6]

- J6. Tamara Munzner, Chris Johnson, Robert Moorhead, Hanspeter Pfister, Penny Rheingans, and Terry S. Yoo. NIH/NSF Visualization Research Challenges Report Summary. *IEEE Computer Graphics and Applications*, 26(2):20-24 (March/April) 2006. [summary of B1]
- J5. **James Slack**, **Kristian Hildebrand**, and Tamara Munzner. PRISAD: Partitioned Rendering Infrastructure for Scalable Accordion Drawing (Extended Version). *Information Visualization*, 5(2):137-151, 2006. [30% new material beyond C11], **invited as a best paper from IEEE Visualization 2005**
- J4. Tamara Munzner, Francois Guimbretiere, Serdar Tasiran, Li Zhang, Yunhong Zhou. TreeJuxtaposer: Scalable Tree Comparison using Focus+Context with Guaranteed Visibility. *ACM Trans. on Graphics (Proc. SIGGRAPH 2003)* 22(3):453-462, 2003. (over 100 cites)
- J3. Kirsten Risden, Mary P. Czerwinski, Tamara Munzner, Daniel B. Cook. An initial examination of ease of use for 2D and 3D information visualizations of web content, *International Journal of Human Computer Studies*, 53(5):695-714, Academic Press, November 2000. (over 100 cites)
- J2. Tamara Munzner. Exploring Large Graphs in 3D Hyperbolic Space, *IEEE Computer Graphics* and Applications, 18(4):18-23, July/August 1998. [summary of C3 and C4] (over 100 cites)
- J1. Andrew J. Hanson, Tamara Munzner, and George Francis. Interactive Methods for Visualizable Geometry. *IEEE Computer*, 27(4):73-83, July 1994.

(b) Conference Proceedings

- C33: Jianhao Cao, Tamara Munzner, and Rachel Pottinger. Visualizing a Tabular Data Repository to Facilitate Descriptive Tag Augmentation for New Tables. Proc. Workshop on Human-In-the-Loop Data Analytics (HILDA), 2023.
- C32: **Stephen Kasica**, **Charles Berret** and Tamara Munzner. Dirty Data in the Newsroom: Comparing Data Preparation in Journalism and Data Science *Proc. CHI Conf. Human Factors in Computing Systems (CHI)*, 2023. **Best paper honorable mention**.
- C31: **Michael Oppermann**, **Luce Liu** and Tamara Munzner. TimeElide: Visual Analysis of Non-Contiguous Time Series Slices *IEEE VIS Short Papers Proceedings 2021*.
- C30: **Michael Oppermann** and Tamara Munzner. Data-First Visualization Design Studies. *IEEE VIS Workshop Evaluation & Beyond Methodological Approaches for Visualization (BELIV)* 2020.
- C29: **Jürgen Bernard**, Marco Hutter, Matthias Zeppelzauer, Michael Sedlmair, and Tamara Munzner. SepEx: Visual Analysis of Class Separation Measures. *Proc. EuroVA Workshop 2020*.
- C28: Emily Hindalong, Jordon Johnson, Giuseppe Carenini, and Tamara Munzner. Towards Rigorously Designed Preference Visualizations for Group Decision Making *Proc. IEEE Pacific Visualization Symposium (PacificVis)*, 2020.
- C27: **Zipeng Liu**, Zhicheng Liu, and Tamara Munzner. Data-driven Multi-level Segmentation of Image Editing Logs *Proc. CHI Conf. Human Factors in Computing Systems (CHI)*, 2020.
- C26: **Anamaria Crisan** and Tamara Munzner. Uncovering Data Landscapes through Data Reconnaissance and Task Wrangling. *IEEE VIS Short Papers Proceedings 2019*.
- C25: *Jan Pilzer, Shareen Mahmud, Vanessa Putnam,* and Tamara Munzner. GaRSIVis: Improving the Predicting of Self-Interruption during Reading using Gaze Data. *Proc. ETVIS 2018*.
- C24: **Anamaria Crisan**, Jennifer Gardy, and Tamara Munzner. On Regulatory and Organizational Constraints in Visualization Design and Evaluation. *Proc. Workshop on BEyond time and errors:* novel evaLuation methods for Information Visualization (BELIV), 2016. (N/A acceptance rate)
- C23: **Matt Brehmer**, **Michael Sedlmair**, **Stephen Ingram**, and Tamara Munzner. Visualizing Dimensionally-Reduced Data: Interviews with Analysts and a Characterization of Task Sequences. *Proc. Workshop on BEyond time and errors: novel evaLuation methods for Information Visualization (BELIV)*, 2014. (N/A acceptance rate) (over 100 cites)

- C22: **Miriah Meyer**, **Michael Sedlmair**, and Tamara Munzner. The Four-Level Nested Model Revisited: Blocks and Guidelines. *Proc. Workshop on BEyond time and errors: novel evaLuation methods for Information Visualization (BELIV)*, 2012. (N/A acceptance rate)
- C21. **Stephen Ingram** and Tamara Munzner. Glint: An MDS Framework for Costly Distance Functions. *Proc. Swedish Chapter of Eurographics (SIGRAD) 2012*, pages 29–38 (N/A acceptance rate).
- C20. Syavash Nobarany, Louise Oram, Vasanth Kumar Rajendran, Chi-Hsiang Chen, Joanna Mc-Grenere, Tamara Munzner. The Design Space of Opinion Measurement Interfaces: Exploring Recall Support for Rating and Ranking. *Proc. ACM Conference on Human Factors in Computing Systems (CHI)* 2012, pages 2035–2044.
- C19. **Stephen Ingram**, Tamara Munzner, Veronika Irvine, Melanie Tory, Steven Bergner, and Torsten Möller. DimStiller: Workflows for dimensional analysis and reduction. *Proc. IEEE Conference on Visual Analytics Software and Technologies (VAST) 2010*, October 24-26 2010, pages 3–10. (28% acceptance rate) (*over 100 cites*)
- C18. **Daniel Archambault**, Tamara Munzner, and David Auber. TugGraph: Path-Preserving Hierarchies for Browsing Proximity and Paths in Graphs. *Proc. IEEE Pacific Visualization Symposium (PacificVis)* 2009, April 20-23 2009, pages 113–121. (39% acceptance rate)
- C17. **Heidi Lam** and Tamara Munzner. Increasing the Utility of Quantitative Empirical Studies for Meta-analysis. *Proc. ACM CHI Workshop on BEyond time and errors: novel evaLuation methods for Information Visualization (BELIV) 2008*, April 5 2008, pages 21–27. (N/A acceptance rate)
- C16. **Peter McLachlan**, Tamara Munzner, Eleftherios Koutsofios, Stephen North. LiveRAC Interactive Visual Exploration of System Management Time-Series Data. *Proc. ACM Conference on Human Factors in Computing Systems (CHI) 2008*, pages 1483–1492, April 5-10 2008. (22% acceptance rate) (over 100 cites)
- C15. **Heidi Lam**, Daniel Russell, Diane Tang, and Tamara Munzner. Session Viewer: Visual Exploratory Analysis of Web Session Logs. *Proc. IEEE Symposium on Visual Analytics Science and Technology (VAST) 2007*, pages 147–154, Oct 30 Nov 1 2007. (42% acceptance rate)
- C14. **Daniel Archambault**, Tamara Munzner, and David Auber. Grouse: Feature-Based, Steerable Graph Hierarchy Exploration. *Proc. Eurographics/IEEE VGTC Symposium on Visualization (EuroVis)* 2007, Eurographics Press, pages 67–74, May 23-25 2007. (38% acceptance rate)
- C13. **Heidi Lam**, Ronald A. Rensink, and Tamara Munzner. Effects of 2D Geometric Transformations on Visual Memory. *Proc. Symposium on Applied Perception in Graphics and Visualization (APGV) 2006*, ACM SIGGRAPH Press, pages 119–126, July 28-29 2006. (44% acceptance rate)
- C12. **Dmitry Nekrasovski**, **Adam Bodnar**, Francois Guimbretiere, Joanna McGrenere, and Tamara Munzner. An Evaluation of Pan&Zoom and Rubber Sheet Navigation with and without an Overview. *Proc. SIGCHI Conference on Human Factors in Computing Systems (CHI) 2006*, pages 11–20, ACM SIGCHI Press, Apr 22-27 2006. (23% acceptance rate)
- C11. **James Slack**, **Kristian Hildebrand**, and Tamara Munzner. PRISAD: Partitioned Rendering Infrastructure for Scalable Accordion Drawing. *Proc. IEEE Symposium on Information Visualization* (*InfoVis*) 2005, pages 41–48, IEEE Computer Society Press, Oct 23-25 2005. (27% acceptance rate)
- C10. **Dale Beermann**, Tamara Munzner, and Greg Humphreys. Scalable, Robust Visualization of Large Trees. *Proc. Eurographics / IEEE VGTC Symposium on Visualization (EuroVis) 2005*, Eurographics Press, pages 37–44, June 1-3 2005. (44% acceptance rate)
- C9. **James Slack**, **Kristian Hildebrand**, Tamara Munzner, and Katherine St. John. SequenceJuxtaposer: Fluid Navigation For Large-Scale Sequence Comparison In Context, *Proc. German Conference on Bioinformatics (GCB) 2004*, pages 37–42, Oct 4-6 2004. (N/A acceptance rate)
- C8. **Matt Williams** and Tamara Munzner. Steerable, Progressive Multidimensional Scaling. *Proc. IEEE Symposium on Information Visualization (InfoVis) 2004*, pages 57–64, IEEE Computer Society Press, Oct 10-12 2004. (30% acceptance rate) (over 100 cites)

- C7. **Keith Lau**, Ron Rensink, and Tamara Munzner. Perceptual Invariance of Nonlinear Focus+Context Transformations. *Proc. Symposium on Applied Perception in Graphics and Visualization (APGV) 2004*, pages 65–72, ACM SIGGRAPH Press, August 7-8 2004. (55% acceptance rate)
- C6. Maneesh Agrawala, Denis Zorin, Tamara Munzner. Artistic Multiprojection Rendering. *Proc. Eurographics Rendering Workshop 2000*, pages 125–136, Eurographics Press, June 26-28 2000. (39% acceptance rate) (*over 100 cites*)
- C5. Tamara Munzner, Francois Guimbretiere, and George Robertson. Constellation: A Visualization Tool For Linguistic Queries from MindNet, *Proc. IEEE Symposium on Information Visualization (InfoVis) 1999*, pages 132–135, IEEE Computer Society Press, Oct 25-26 1999. (40% acceptance rate)
- C4. Tamara Munzner. Drawing Large Graphs with H3Viewer and Site Manager, *Proc. Symposium on Graph Drawing (GD) 1997*, pages 384–393, Springer-Verlag Lecture Notes in Computer Science 1547, August 13-15 1998. (40% acceptance rate) (*over 100 cites*)
- C3. Tamara Munzner. H3: Laying Out Large Directed Graphs in 3D Hyperbolic Space, *Proc. IEEE Symposium on Information Visualization (InfoVis) 1997*, pages 2–10, IEEE Computer Society Press, Oct 20-21 1997. (59% acceptance rate) (over 100 cites)
- C2. Tamara Munzner, Eric Hoffman, K. Claffy, and Bill Fenner. Visualizing the Global Topology of the MBone, *Proc. IEEE Symposium on Information Visualization (InfoVis) 1996*, pages 85–92, IEEE Computer Society Press, Oct 28-29 1996. (56% acceptance rate) (over 100 cites)
- C1. Tamara Munzner and Paul Burchard. Visualizing the Structure of the World Wide Web in 3D Hyperbolic Space, *Proc. Symposium on the Virtual Reality Modelling Language (VRML) 1995*, pages 33–38, ACM SIGGRAPH Press, Dec 14-15 1995. (N/A acceptance rate) (*over 100 cites*)

(c) Other

- O14. **Michael Oppermann** and Tamara Munzner. Abstract: Uncovering Spatiotemporal Dynamics from Nontrajectory Data. CityVis Workshop 2018 (at IEEE VIS 2018), 10/2018.
- O13. **Anamaria Crisan**, Geoffrey McKee, Tamara Munzner, Jennifer L. Gardy. Poster: Showcasing the design study methodology through simpler design challenges: An application to a microbial genomics clinical report design. InfoVis 2017 Posters Track, 10/2017.
- O12. *Antoine Ponsard, Francisco Escalona*, and Tamara Munzner. Poster: PaperQuest: A Visualization Tool to Support Literature Review. ACM CHI Extended Abstracts, 4/2016.
- O11. *Mike Wu* and Tamara Munzner. Poster: SEQIT: Visualizing Sequences of Interest in Eye Tracking Data. InfoVis 2015 Posters Track, 10/2015.
- O10. William O. Chao, Tamara Munzner, Michiel van de Panne. Poster: Rapid Pen-Centric Authoring of Improvisational Visualizations with NapkinVis. InfoVis 10 Posters Track, 10/2010.
- O9. Gardy, J., Lynn, D., Winsor, G., **Barsky, A.**, Roche, F., Chan, T., Laird, M., Chan, C., Shah, N., Richard, N., Lo, R., Naseer, M., Que, J., Yau, M., Acab, M., Tulpan, D., Whiteside, M., Munzner, T., Hancock, R., and Brinkman, F. Poster. InnateDB and Cerebral: Computational Tools for the Systems-Level Analysis of Innate Immunity. Experimental Biology, April 5-9, 2008, San Diego, CA, USA.
- O8. David J. Lynn, Fiona M. Roche, Timothy H.W. Chan, Jennifer L. Gardy, Geoff Winsor, Matthew R. Laird, Michael Acab, Calvin Chan, Naisha Shah, John Ling, Raymond Lo, **Aaron Barsky**, Tamara M. Munzner, Dan Tulpan, Matthew Whiteside, Lorne A. Babiuk, Karsten Hokamp, Robert E.W. Hancock, Fiona S.L. Brinkman. Poster. InnateDB: A knowledge base for systems biology approaches to studying mammalian innate immunity. 2nd American Society for Microbiology Pathogenomics Conference. June 24-27, 2007. Halifax, Nova Scotia, Canada.
- O7. **Heidi Lam**, Tamara Munzner, and Ronald A. Rensink. Abstract: The Invariance of Visual Long-term Memory to Geometric Transformation. Journal of Vision, 6(6):983, 983a. Vision Sciences Society, Sarasota, FL, USA. 5/2006.

- O6. Roche FM, Acab M, **Barsky A**, Chan T, Fulton DL, Gardy JL, Laird MR, Li YL, Lo R, Munzner T, Winsor GL, Wei R, Whiteside M, Babiuk L, Hancock REW, Hokamp K, Brinkman FSL. Poster: A bioinformatics platform facilitating robust cross-species comparisons of innate immunity microarray data. 2006 International Workshop on Systems Biology, July 17-19, National University of Ireland, Maynooth, Kildare, Ireland.
- O5. **Dan Archambault**, Tamara Munzner, and David Auber. Poster: TopoLayout: Graph Layout by Topological Features. InfoVis 05 Posters Track, 10/2005.
- O4. **Heidi Lam**, Tamara Munzner. Poster: MusicLand: Exploratory Browsing in Music Space. InfoVis 05 Posters Track, 10/2005.
- O3. Maylis Delest, Tamara Munzner, David Auber, and Jean-Philippe Domenger. InfoVis 2004 Contest Entry: Exploring InfoVis Publication History with Tulip. One of eight second place winners, 10/2004.
- O2. *Lior Berry* and Tamara Munzner. Poster: BinX: Dynamic Exploration of Time Series Datasets Across Aggregation Levels. InfoVis 04 Posters Track, 10/2004.
- O1. **James Slack**, Tamara Munzner, and Francois Guimbretiere. InfoVis 2003 Contest Entry: Tree-Juxtaposer. Overall First place winner, 10/2003.

15. NON-REFEREED PUBLICATIONS

(a) Conference Proceedings: Invited Papers

- M2. Tamara Munzner (with Matthew Brehmer). A Conversation with CHCCS 2021 Achievement Award Winner Tamara Munzner. Proc. Graphics Interface 2021.
- M1. Tamara Munzner. Applying Information Visualization Principles to Biological Network Displays. Proc. SPIE Human Vision and Electronic Imaging 2011, volume 7865, article 13.

(b) Theses

T1. Tamara Munzner. Interactive Visualization of Large Graphs and Networks. PhD thesis, Department of Computer Science, Stanford University, 2000. (over 100 cites)

(c) Other

- N16. Aggregate-driven trace visualizations for performance debugging *Vaastav Anand, Matheus Stolet*, Thomas Davidson, Ivan Beschastnikh, Tamara Munzner, and Jonathan Mace. arXiv preprint arXiv:2010.13681, 2020.
- N15. LSQT: Low-Stretch Quasi-Trees for Bundling and Layout Rebecca Vandenberg, Madison Elliott, Nicholas Harvey, Tamara Munzner. arXiv preprint arXiv:2007.06237, 2020.
- N14. **Michael Sedlmair**, **Matt Brehmer**, **Stephen Ingram**, and Tamara Munzner. Dimensionality Reduction in the Wild: Gaps and Guidance. UBC Computer Science Technical Report TR-2012-03, June 2012.
- N13. **Stephen Ingram**, Tamara Munzner, and Jonathan Stray. Technical Report. Hierarchical Clustering and Tagging of Mostly Disconnected Data UBC Department of Computer Science Technical Report TR-2012-01, May 2012.
- N11. **Jessica Dawson**, Joanna McGrenere, Tamara Munzner, Karyn Moffatt, and Leah Findlater. Ephemeral Paths: Gradual Fade-In as a Visual Cue for Subgraph Highlighting. UBC Computer Science Technical Report TR-2011-10, August 2011.
- N10. **Heidi Lam** and Tamara Munzner. A Guide to Visual Multi-Level Interface Design From Synthesis of Empirical Study Evidence. UBC Computer Science Technical Report TR-2010-11, October 2010.

- N9. Tamara Munzner, **Aaron Barsky**, and **Matt Williams**. Reflections on QuestVis: A Visualization System for an Environmental Sustainability Model. UBC Computer Science Technical Report TR-2009-24, November 2009.
- N8. **Stephen Ingram**, Tamara Munzner, and Marc Olano. GLUG: GPU Layout of Undirected Graphs. UBC Computer Science Technical Report TR-2007-23, October 2007.
- N7. **Heidi Lam** and Tamara Munzner. A Study-Based Guide to Multiple Visual Information Resolution Interface Designs. UBC Computer Science Technical Report TR-2007-21, September 2007.
- N6. **Stephen Ingram**, Tamara Munzner and Marc Olano. Glimmer: Multilevel MDS on the GPU. UBC Computer Science Technical Report TR-2007-15, June 2007.
- N5. **Dan Archambault**, Tamara Munzner, and David Auber. TopoLayout: Graph Layout by Topological Features. Technical Report TR-2005-30, Department of Computer Science, University of British Columba, 2005.
- N4. Tamara Munzner, **Qiang Kong**, Raymond T. Ng, **Jordan Lee**, **Janek Klawe**, **Dragana Radulovic**, and Carson K. Leung. Visual Mining of Power Sets with Large Alphabets. Technical Report TR-2005-25, Department of Computer Science, University of British Columba, 2005.
- N3. **James Slack**, **Kristian Hildebrand**, and Tamara Munzner. Poster: Accordion Comparison of Evolutionary Trees and Genomic Sequences. Evolution 2004, Fort Collins CO, 6/04
- N2. Nina Amenta, Stuart Levy, Tamara Munzner, and Mark Phillips. Geomview: a system for geometric visualization, *Proceedings of the 11th Annual ACM Symposium on Computational Geometry*, pages C12-C13, (communication), 1995. (over 100 cites)
- N1. Mark Phillips, Silvio Levy, and Tamara Munzner. Geomview: An Interactive Geometry Viewer, *Notices of the American Mathematical Society*, 40(8), pages 985-988, (Computers and Mathematics Column), Oct 1993. (*over 100 cites*)
- N0. Tamara M. Munzner and Mark B. Phillips. Position Paper: Visualization in Geometry Research and Education, *Scientific Visualization Environments Workshop*, IEEE Visualization 1991.

16. BOOKS

(a) Authored

- B3. Tamara Munzner. Visualization Analysis and Design. AK Peters Visualization Series. CRC Press, 2014. (404 pages) (over 1000 cites)
- B2. **Heidi Lam** and Tamara Munzner. A Guide to Visual Multi-Level Interface Design From Synthesis of Empirical Study Evidence. Synthesis Lectures on Visualization Series, Lecture 1, Morgan Claypool, November 2010. (117 page monograph)
- B1. Chris Johnson, Robert Moorhead, Tamara Munzner, Hanspeter Pfister, Penny Rheingans, and Terry S. Yoo. NIH-NSF Visualization Research Challenges Report. IEEE Computer Society Press, 2006, ISBN 0-7695-2733-7 (40 pages) (over 100 cites)

(b) Edited

- E5. Proceedings of the 2023 IEEE VIS Conference (special issue of IEEE TVCG), Tamara Munzner et al, eds.
- E4. Proceedings of the 2010 EuroVis Conference (special issue of Computer Graphics Forum). Tamara Munzner, Guy Melançon, and Daniel Weiskopf, eds.
- E3. Proceedings of the 2009 EuroVis Conference (special issue of Computer Graphics Forum). Hans-Christian Hege, Ingrid Hotz, and Tamara Munzner, eds.

- E2. Proceedings of the 2004 IEEE Symposium on Information Visualization (InfoVis), Tamara Munzner and Matt Ward, eds.
- E1. Proceedings of the 2003 IEEE Symposium on Information Visualization (InfoVis), Tamara Munzner and Stephen North, eds.

(c) Chapters

- D3. Tamara Munzner, **Aaron Barsky**, **Matt Williams**. Reflections on QuestVis: A Visualization System for an Environmental Sustainability Model. Scientific Visualization: Interactions, Features, Metaphors. Dagstuhl Follow-Ups 2, 2011, Chapter 17, p 240–259.
- D2. Tamara Munzner. Visualization. Chapter 27, p 675-707, of *Fundamentals of Graphics, Third Edition*. by Peter Shirley and Steve Marschner, with additional contributions by Michael Ashikhmin, Michael Gleicher, Naty Hoffman, Garrett Johnson, Tamara Munzner, Erik Reinhard, Kelvin Sung, William B. Thompson, Peter Willemsen, Brian Wyvill. AK Peters, 2009.
- D1. Tamara Munzner. Process and Pitfalls in Writing Information Visualization Research Papers. Chapter in *Information Visualization: Human-Centered Issues and Perspectives*. Andreas Kerren, John T. Stasko, Jean-Daniel Fekete, Chris North, eds. Springer LNCS Volume 4950, 2008, pages 134–153. (over 100 cites)

17. PATENTS

18. SPECIAL COPYRIGHTS

Outside In was shown in excerpt at the SIGGRAPH 94 Electronic Theater and won prizes at Nicograph, Prix Ars Electronica, Prix Pixel Imagina, and the London Effects and Animation Festival. The Shape of Space was shown in excerpt at the SIGGRAPH 95 Electronic Theater and Prix Pixel Imagina. Outside In has been viewed over 14 million times on YouTube (see https://www.cs.ubc.ca/~tmm/gc/).

- V3. Tamara Munzner and Delle Maxwell. The Shape of Space [video, 11 minutes]. Producer: The Geometry Center. Key Curriculum Press, 2000.
- V2. Nina Amenta and Tamara Munzner. Four-Polytopes and a Funeral (for my Conjecture) [video, 5 minutes]. 1995 Computational Geometry Symposium Video Proceedings.
- V1. Silvio Levy, Delle Maxwell, and Tamara Munzner. Outside In [video, 22 minutes]. Producer: The Geometry Center. AK Peters, 1994.

19. OTHER WORKS

- (a) Software released publicly arising from research from me and my group
 - S33. CorGIE (with Zipeng Liu; 2022) Visualization tool for graph neural networks. Open source.
- S32. **TimeElide** (with **Michael Oppermann** and **Luce Liu**; 2021) Toolkit for visualization of non-contiguous time series. Open source.
- S31. GEViTRec (With Anamaria Crisan; 2021) Automatic visualization recommendation for genomic epidemiology domain. Open source.
 - S30. **Sprawlter** (with **Zipeng Liu**; 2021) Graph readability metric. Open source.
 - S29. ADView (with Zipeng Liu; 2019) Aggregated dendrograms for phylogenetic tree comparison. Open source.
- S28. **gevit.net.** (with **Anamaria Crisan**; 2018) Visualization tool to browse genomic epidemiology typology. Open source.
- S27. Adjutant. (with Anamaria Crisan; 2018) Visualization tool to support systematic literature surveys. Open
- S26. **GaRSIVis.** (with Jan Pilzer, Shareen Mahmud, Vanessa Putnam; 2018) Visualization tool to show self-interruption during reading using gaze data. Open source.

- S25. **PaperQuest.** (with *Antoine Ponsard* and *Francisco Escalona*; 2016) Visualization tool to support literature review. Open source.
- S24. TimeLineCurator. (With Johanna Fulda and Matt Brehmer; 2015) Authoring tool for journalists and others to create timeline from free-form text. Open source.
 - S23. **SEQIT.** (with $Mike\ Wu; 2014$) Visualization system designed for sequence analysis of eye tracking data. Open source.
- S22. APQ and QSNE. (with Stephen Ingram; 2014) All-Pairs Query, or APQ, nearest-neighbor algorithm and the Q-SNE, dimensionality reduction algorithm. Open source.
- S21. **Overview.** (with **Stephen Ingram**, Jonathan Stray, Jonas Karlsson, and Adam Hooper; 2012-2013) Visualization and analysis tool for large sets of documents, intended to support investigative journalism. Open source.
 - S20. Glint. (with Stephen Ingram; 2012) Multi-dimensional scaling with costly distance functions. Open source.
- S19. **Vismon.** (with Maryam Booshehrian and Torsten Moeller; 2012) Visual analysis tool for fisheries simulation data, including sensitivity analysis, global trade-offs analysis, and staged uncertainty. Open source.
- S18. **Vismon.** (with Maryam Booshehrian and Torsten Moeller; 2012) Visual analysis tool for fisheries simulation data, including sensitivity analysis, global trade-offs analysis, and staged uncertainty. Open source.
- S17. **DimStiller.** (with **Stephen Ingram**; 2010) Visualization system for dimensional analysis and reduction, providing guidance for middle-ground users. Open source.
- S16. MulteeSum (with Miriah Meyer; 2010) Exploration tool that supports the comparison of multiple gene expression data sets defined both spatially and temporally. Open source.
- S15. **Pathline**. (with **Miriah Meyer**; 2010) Tool that visualizes temporal gene expression data over multiple molecular pathways and across multiple species. Open source.
- S14. Mizbee. (with Miriah Meyer; 2009) Browser that enables anlysis of comparative genomics data through visualization across multiple scales. Open source.
- S13. **Glimmer.** (With **Stephen Ingram**; 2008) GPU and CPU versions of fast and robust multilevel multidimensional scaling algorithm. Open source.
- S12. GrouseFlocks, Grouse. (with Daniel Archambault; 2008) Multilevel graph hierarchy exploration tools, built on the Tulip framework. Open source.
- S11. **SPF.** (With **Daniel Archambault**; 2008) Smashing Peacocks Further quasi-tree graph layout, built on Tulip and TopoLayout. Open source.
- S10. **TopoLayout.** (With **Daniel Archambault**; 2008) Feature-based multilevel graph layout, built on the Tulip framework by David Auber. Open source.
- S9. **Cerebral.** (With **Aaron Barsky**; 2008) Cytoscape plugin for compartmentalized network layout, for instance using subcellular localization annotations, and comparing quantitative data from multiple experiments. Open source.
- S8. SequenceJuxtaposer. (with James Slack, Kristian Hildebrand; 2005) Visualization software for browsing and comparing gene sequences. Open source.
- S7. **TreeJuxtaposer.** (with **James Slack**, **Kristian Hildebrand**, Francois Guimbretiere, Li Zhang, Yunhung Zhou; 2003) Visualization software for browsing and comparing large trees, especially phylogenetic or taxonomic trees. InfoVis 2004 contest overall winner. Open source.
- S6. **HypViewer.** (1997) The 3D hyperbolic module used in Site Manager below, in library form. Source released for free noncommerical use.
- S5. **Site Manager.** (with Alan Braverman and Greg Ferguson; 1997) Free software from Silicon Graphics for webmasters and content creators, with a 3D hyperbolic view of the link structure of the target web site using layout from InfoVis97 paper and guaranteed frame rate drawing algorithm from Graph Drawing 98 paper. Binary release bundled with Irix 6.5.
- S4. Caidants. (with Eric Hoffman; 1996) The CAIDA toolset for network drawing, used to create a series of short videos including Planet Multicast and autogenerated web pages. Open source.
- S3. WebOOGL. (1994) Proof of concept implementation of integrating 3D graphics with the web. Runner-up proposal for VRML 1.0 standard, the vote was won by SGI's Inventor-based proposal. Open source.
- S2. **Triangle Tiling.** (with Charlie Gunn, Stuart Levy, and Olaf Holt; 1994.) Museum exhibit on display at the Science Museum of Minnesota for several years, allowed visitors to explore the connections between symmetry groups, tiling, duality, the Platonic and Archimedean solids, and non-Euclidean geometry through interactive 3D graphics. Open source.
- S1. **Geomview.** (with Stuart Levy and Mark Phillips; 1992) 3D interactive visualization package with over one thousand registered users at its peak, includes support for non-Euclidean and higher-dimensional geometry. Open source.