Sheelagh Carpendale

Full Professor

Canada Research Chair: Tier 1: Data Visualization
Director: Innovations in Visualization (InnoVis)
Co-Director: Interactive Experiences Lab (ixLab)

Office: TASC1 9233
Lab: ixLab TASC1 9200
School of Computing Science
Simon Fraser University
8888 University Drive
Burnaby, British Columbia
Canada V5A 1S6

Phone: +1 778 782 5415
Email: sheelagh@sfu.ca
Web: https:// www.sfu.ca/~sheelagh/

AWARDS

MAJOR AWARDS

2022 CS-CAN (Computer Science Canada) Lifetime Achievement Award. Recognize faculty members in Canadian Computer Science Departments, Schools, and Faculties who have made outstanding and sustained contributions to computing over their careers.

2021 Fellow of the Royal Society of Canada (RSC). RSC is the senior national, council of distinguished Canadian scholars, humanists, scientists and artists.

2020 Canada Research Chair, Tier I: Information Visualization: (2020). Simon Fraser University, Faculty of Applied Science, School of Computing Science. Canada wide award for excellence in research.

2019 Inducted into the IEEE Visualization Academy. (Induction into the Vis Academy is the highest and most prestigious honor in the field of visualization.)

2018 IEEE VGTC Visualization Career Award. (The IEEE VGTC Career Award recognizes and honors individuals who have made a significant contribution to the community through their research. In particular this was awarded for my work in interactive data exploration, in visualization in novel contexts such as wall and tabletop display, in rigorous qualitative evaluation methods, in bringing aesthetic considerations to the research community, and for her contributions in a wide range of application domains, including medicine, digital humanities, geography, the environment, personal data, and emergency management) https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=8570932)

2018 Inducted into the CHI Academy. (The CHI Academy is an honorary group of individuals who have made substantial contributions to the field of human-computer interaction. These are the principal leaders of the field, whose efforts have shaped the disciplines and/or industry, and led the research and/or innovation in human-computer interaction.) https://sigchi.org/awards/sigchi-award-recipients/2018-sigchi-awards/

2017 Scholarship Award of Excellence in the Established Career category, Faculty of Science, University of Calgary

2016 University of Calgary Peak Scholar, Dr. Carpendale's research focuses on designing, developing and evaluating interactive visualizations and technologies so that they support the everyday practices of how people view, represent, manage, and interact with information. Her primary motivation is to promote information comprehension by creating appropriate tools that can help people negotiate the everyday transformation of vast amounts of information into knowledge.

2015: Distinguished Visitor: Scottish Informatics and Computer Science Alliance (SICSA). In spring of 2015 I was invited as a Scottish Informatics and Computer Science Alliance (SICSA) as a Distinguished Visitor, where I spent 3 weeks visiting, giving talks and organizing and running a workshop, at University of St. Andrews, University of Dundee, Napier University and Duncan of Jordanstone College of Art and Design (DJCAD).

2015 Faculty of Science, Established Career Research Excellence Award. 2015, University of Calgary

2015 Canada Research Chair, Tier I: Information Visualization: (2015). University of Calgary, Faculty of Science, Department of Computer Science. Canada wide awards for excellence in research.
https://www.ucalgary.ca/utoday/issue/2015-04-10/eight-canada-research-chairs-announced

2014 NSERC/AITF/SMART Industrial Research Chair in Interactive Technologies: (2014)

2014 Faculty of Graduate Studies, My Supervisor Skills, GREAT Supervisor Award. Sept. 2014, University of Calgary

2014 INRIA DIGITEO Distinguished Visiting Scientist: Campus Paris Saclay: 2014 Oct.-Dec.

ASTech Award Winner: 2013 Innovation in Information and Communications Technology Sponsored by TELUS, Winner
http://www.astech.ca/awardee/2013-ict-carpendale-dr-sheelagh

Canadian Human Computer Communications Society (CHCCS) Achievement Award: (2013)
The CHCCS/SCDHM Achievement Award is presented periodically to a Canadian researcher who has made a substantial contribution to the fields of computer graphics, visualization, or human-computer interaction. http://www.cs.ubc.ca/~ksbooth/gi/archive/achvmnt2013.html

NSERC, E.W.R. STEACIE Memorial Fellowship Award: (2012). This fellowship is awarded nationally to up to six most outstanding and highly promising scientists and engineers in

Canada, within 12 years of their PhD. (http://www.nserc-crsng.gc.ca/Prizes-Prix/Steacie-Steacie/Profiles-Profils/Carpendale-Carpendale_eng.asp)

Featured in Canada's State of the Nation Report: (2012). (http://www.stic-csti.ca/eic/site/stic-csti.nsf/eng/h_00058.html?Open&pv=1; http://www.stic-csti.ca/eic/site/stic-csti.nsf/eng/00066.html#demand **)**

NSERC, Discovery Accelerator Award: (2012) The Accelerator is awarded to a select few of the NSERC Discovery Grant applicants**.**

ASTech Award Honoree: (2011) for 'significant contribution through the discovery, application and/or implementation of technology products or processes.'

IEEE Recognition of Service Award: (2011). For service as Conference and Papers Co-Chair for IEEE Information Visualization.

Excellence in Supervision Award: (2009). This is a university wide award where one is nominated by their students, University of Calgary.

Canada Research Chair, Tier II: Information Visualization: (2009). University of Calgary, Faculty of Science, Department of Computer Science. Canada wide awards for excellence in research.

ACM Recognition of Service Award: (2009). ACM Conference Interactive Tabletops and Surfaces.

NSERC/iCORE/SMART Industrial Research Chair in Interactive Technologies: (2007)

Faculty of Science, Research Excellence Award: (2006) University of Calgary.

Canada Research Chair, Tier II: Information Visualization: (2004). University of Calgary, Faculty of Science, Department of Computer Science and Faculty of Communications and Culture.

NSERC UFA, University Faculty Award: (2003)

BAFTA (British Academy of Film & Television Arts Interactive Awards): (2002) Category: Interactive Learning. Project: Antarctic Waves: developed with BRAUNARTS, the British Antarctic Survey and the London Philharmonic. Position: Computer Visualisation Consultant. (a BAFTA is the British equivalent to Canada's GENIE Award or in USA to an Emmy (television) or an Oscar (film))

NSERC UFA, University Faculty Award: (2000)**.**

Best PhD Award: (1999). School of Computer Science, Simon Fraser University.

NSERC, Postgraduate Scholarship B: (1994 – 1996). Canadian scholarship, top 2% of graduate students nationally.

NSERC, Postgraduate Scholarship A: (1992 – 1994). Canadian scholarship, top 2% of graduate students nationally.

PUBLICATION AWARDS

2023 Best Paper Honorable Mention Award. Helen He, Jagoda Walny, Sonja Thoma, Sheelagh Carpendale, Wesley Willett. (2023). Enthusiastic and Grounded, Avoidant and Cautious: Understanding Public Receptivity to Data and Visualizations. IEEE Transactions on Visualization and Computer Graphics (IEEE VIS). IEEE Computer Society Press.

2023 Best Poster Runner-Up. Foroozan Daneshzand, Charles Perin, Sheelagh Carpendale. Unfolding Climate Stories: Kirigami Data Art in the Wild. Poster. In Graphics Interface

2023 Best Demo Runner-Up. David Wong-Aitken, Parsa Rajabi, Sheelagh Carpendale, Parmit Chilana. Demo: Tangibooks. Designing For People Design Showcase 2023.

2021 Best Paper Award: Wesley Willett, Bon Adriel Aseniero, Sheelagh Carpendale, Pierre Dravgicevic, Yvonne Jansen. Perception! Immersion! Empowerment!: Superpowers as Inspiration for Visualization. *IEEE Transactions on Visualization and Computer Graphics (IEEE VIS)*, IEEE Computer Society Press.

2020 ACM CSCW Lasting Impact Award: Stacey D. Scott, Sheelagh Carpendale, and Kori M. Inkpen. Territoriality in collaborative tabletop workspaces. In *Proceedings of the 2004 ACM Conference on Computer Supported Cooperative Work*, pp. 294-303. 2004. (This award goes to a paper that is at least 10 years old and has had an impact on CSCW as a field. Nominations are taken from the community, and the decision is made by a committee of senior CSCW scholars. This year's committee consisted of Cecilia Aragon, Amy Bruckman, Karrie Karahalios, Michael Muller, Bonnie Nardi, Paul Resnick, and Naomi Yamashita).

2020 Best Paper, Honorable Mention: Bon Adriel Aseniero, Charles Perin, Wesley Willett, Anthony Tang, and Sheelagh Carpendale. "Activity River: Visualizing Planned and Logged Personal Activities for Reflection." In *Advanced Visual Interfaces (AVI)* (2020).

2020 Transactions on Visualization and Computer Graphics (TVCG) Journal Selection Paper Award: Fateme Rajabiyazdi, Charles Perin, Lora Oehlberg, and Sheelagh Carpendale. "Exploring the Design of Patient-Generated Data Visualizations." In Graphics Interface (GI). Canadian Information Processing Society, 2020.

2019 Best Paper Award: Jagoda Walny, Christian Frisson, Mieka West, Doris Kosminsky, Søren Knudsen, Sheelagh Carpendale, Wesley Willett. Data Changes Everything: Challenges and Opportunities in Data Visualization Design Handoff. *IEEE Transactions on Visualization and Computer Graphics (InfoVis track of IEEE VIS)*, IEEE Computer Society Press.

2019 Best Poster Design Award: Weina Jin, Sheelagh Carpendale, Ghassan Hamareh, Diane Gromala. (2019). Bridging AI Developers and End Users: an End-User-Centred Explainable AI Taxonomy and Visual Vocabularies. *Poster: VAST track, IEEE VIS.*

2018 ACM ISS Ten Year Impact Award: Mark Hancock, Thomas Ten Cate, Sheelagh Carpendale. Sticky tools: full 6DOF force-based interaction for multi-touch tables. In *Proceedings of the ACM International Conference on Interactive Tabletops and Surfaces,* pp. 133-140. ACM, 2009.

2018 Best Poster, Honorable Mention: Kendra Wannamaker, Lora Oehlberg, Sheelagh Carpendale, Wesley Willett. (2018) Data Embroidery. In *Posters IEEE VIS, InfoVis*, 2018.

2016 Best Poster, Honorable Mention: Bon Adriel Aseniero, Charles Perin, Marjan Eggermont, Sheelagh Carpendale (2016) Fireflies: Biomimicry-Inspired InfoVis for Exploring Public Opinion about an Infectious Disease *In Posters Compendium InfoVis*, 2016.

2015 Best Paper, Honorable Mention: Jagoda Walny, Samuel Huron, Sheelagh Carpendale. (2015). An Exploratory Study of Data Sketching for Visual Representation. Computer Graphics Forum. 34(3):231-240

2015 Best Paper: Bongshin Lee, Greg Smith, Nathalie Henry Riche, Amy Karlson, Sheelagh Carpendale. (2015). SketchInsight: Natural Data Exploration on Interactive Whiteboards Leveraging Pen and Touch Interaction. Proceedings of the IEEE Conference Pacific Visualization. pp199-206.

2014 Best Paper, Honorable Mention: Samuel Huron, Sheelagh Carpendale, Alice Thudt, Anthony Tang, Michael Mauerer. (2014). Constructive Visualization. In Proceedings of the ACM Conference on Designing Interactive Systems. pp 433-442, ACM Press.

2014 Best Poster, Honorable Mention: Jagoda Walny and Sheelagh Carpendale. Data Sketches: An Exploratory Study. In Posters Compendium InfoVis, 2014

2013 Best Short Paper: Alice Thudt, Dominikus Baur, Sheelagh Carpendale. (2013). Visits: A Spatiotemporal Visualization of Location Histories. In Proceedings of European Conference on Visualization, EuroVis'13. June 2013.

2013 UIST Best Demo, Honourable Mention: John Brosz, Miguel Nacenta, Ricky Pusch, Sheelagh Carpendale, Christophe Hurter. 2013. Transmogrification: UIST Demo. ACM Symposium on User interface software and technology (UIST)

2012 Invited to submit an extended version to the Journal TRACEY: Jagoda Walny, Sheelagh Carpendale. (2012) Towards Supporting Interactive Sketch-Based Visualizations. (2012) Thinking through Drawing 2012: Drawing in STEAM (Science, Technology, Engineering, Arts & Maths) Symposium, sponsored by International Drawing and Cognition Research, Wimbledon, UK. (12 pages)

2011 Best Paper: Jonathan Haber, Sean Lynch, Sheelagh Carpendale. (2011) ColourVis: exploring colour usage in paintings over time. In Proceedings of the International Symposium on Computational Aesthetics in Graphics, Visualization, and Imaging, pp 105-112, ACM Press.

2011 Best Paper: Marian Dörk, Sheelagh Carpendale, Carey Williamson. (2011). EdgeMaps: Visualizing Explicit and Implicit Relations. In *Proceedings of VDA 2011: Conference on Visualization and Data Analysis*. IS&T/SPIE, 2011.

2008 Best Paper, Honorable Mention: Charlotte Tang, Sheelagh Carpendale. (2008). Evaluating the Deployment of a Mobile Technology in a Hospital Ward. Proceedings of the ACM Conference on Computer Supported Cooperative Work (CSCW 2008). pp. 205-214.

2007 Best Paper: Holly Schmidt, Uta Hinrichs, Alan Dunning, Sheelagh Carpendale. (2007). memory [en]code - Building a Collective Memory within a Tabletop Installation. *Proc. Computational Aesthetics in Graphics, Visualization, Imaging, (CAe'07)*, pp. 135–142, Eurographics Ass.

2007 Best Paper, Honorable Mention: Mark Hancock, Sheelagh Carpendale, Andy Cockburn. (2007). Shallow-Depth 3D Interaction: Design and Evaluation of One-, Two- and Three-Touch Techniques. *Proc. Conference on Human Factors in Computing Systems (ACM CHI'07)*, pp. 1147–1156, ACM Press

My Graduate Students' Major Awards:

2022 Bon Adriel Aseniero: Honourable Mention (2nd in the world) in the 2022 IEEE VGTC Doctoral Dissertation Competition for his PhD thesis '*An Autobiographical Reflection on Designing Visualizations for Personal Contexts'*.

2018 Alice Thudt: Honourable Mention (2nd in the world) in the 2018 IEEE VGTC VPG Doctoral Dissertation Competition for her PhD thesis '*Visualizations for Personal Reflection and Expression'*.

2018 Tanja Blascheck, received EUROVIS Best Doctoral Dissertation for her PhD thesis '*Understanding Interactive Visualizations: Leveraging Eye Movements and Visual Analytics'*. I supervised Tanja Blascheck, PhD exchange student, University of Stuttgart as her Mitberichter.

2018 Kyle Hall: Best PhD Award: awarded best PhD in Faculty of Science, University of Calgary for his thesis '*Interweaving Computational Chemistry and Visualization: Explorations into Molecular Processes, Simulation Analysis, and Visualization Design.'*

2017 Jagoda Walny: Honourable Mention (2nd in the world) in the 2017 IEEE VGTC VPG Doctoral Dissertation Competition for her PhD thesis *'Thinking with Sketches: Leveraging Everyday Use of Visuals for Information Visualization'*.

2017 Jagoda Walny: Best HCI PhD in Canada awarded the (**Bill Buxton Award**): for her PhD thesis *'Thinking with Sketches: Leveraging Everyday Use of Visuals for Information Visualization'*. http://graphicsinterface.org/awards/bill-buxton/jagoda-walny/

2012-2015: Marjan Eggermont PhD student who founded, edits, and designs **Zygote Quarterly (**ZQ), which was a finalist (**2nd to Scientific American)** in the Digital Magazine Awards, Science and Nature category, in 2012, 2013, 2014, and 2015. (https://zqjournal.org/).

2012 Uta Hinrichs: Best HCI PhD in Canada (2012) awarded to my PhD student U. Hinrichs (Bill Buxton Award) for her PhD '*Open-Ended Explorations in Exhibition Spaces: A Case for Information Visualization and Large Direct-Touch Displays'*. http://www.cs.ubc.ca/~ksbooth/gi/archive/hci2012.html

2011 Lindsay MacDonald Digital Alberta Award: (2011). My MFA (Computational Media Design) student L. MacDonald was awarded the provincial award for the best student digital media piece for her work '*A Delicate Agreement*'.

2008 Uta Hinrichs and Holly Schmidt: Canadian New Media Awards: finalist. Students U. Hinrichs, H. Schmidt were one of the three finalists in Canada for Interactive Media for their piece '*EMDialog'*.

2008 Torre Zuk: The University of Calgary nominated my student Torre Zuk`s Ph.D. '*Visualizing Uncertainty*' for Best PhD thesis nationally.

2005 Stacey Scott: Best PhD Award: My student S. Scott was awarded best PhD in Faculty of Science, University of Calgary for her thesis '*Territoriality in Collaborative Tabletop Workspaces'.*

My Post-Doctoral Fellows' Major Awards:
Included to show the calibre of Post-Doctoral Fellows I attract

2023 Zezhong Wang: (My PostDoc 2022 to 2025) Honourable Mention (2nd in the world) in the 2023 IEEE VGTC VGTC Visualization Dissertation Award. Given by IEEE Visualization and Graphics Technical Community (VGTC) for his PhD thesis **'***Creating Data Comics for Data-Driven Story Telling'.*

2017 Søren Knudsen: (My PostDoc 2017 to 2021) awarded and fully supported by the **Marie Skłodowska-Curie Actions (MSCA) Individual Fellowship — Global Fellowships programme** for his project VIVIR — VIsualizing VIew Relations — VIsual representations of VIew Relations to support effective data analysis on large and high-resolution displays.

2015 Jo Vermeulen: (My PostDoc 2016 to 2017) received the 2015 **FWO-IBM Innovation Award, Best Belgian Computer Science Dissertation** (2015)

2015 Samuel Huron: (My PostDoc 2014 to 2015) received the **2015 IEEE VGTC VPG Doctoral Dissertation Award** for his PhD thesis *'Constructive Visualization: A Token-based Paradigm Allowing to Assemble Dynamic Visual Representation for Non-experts'*. This is a great example of the best that can happen when working at the intersection of two labs (InnoVis and JD Fekete's AVIZ at INRIA)