

## Fateme Rajabiyazdi

McGill University  
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## Education

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**PhD in Computer Science - Information Visualization - University of Calgary** 2014–2018

*Thesis:* Exploring the Design of Visualizations to Facilitate Patient-Provider Communication (*GPA: 4.0*)

*Supervisors:* [Dr. Sheelagh Carpendale](#) and [Dr. Lora Oehlberg](#)

*Committee:* [Dr. Charles Perin](#) (University of Victoria) and [Dr. Diane Gromala](#) (Simon Fraser University)

**Master in Computer Science - HCI - Australian National University** 2010–2012

*Thesis:* Design and Development of Interface for Different Tablet Sizes

*Supervisors:* [Dr. Tom Gedeon](#) and [Dr. Duncan Stevenson](#)

**Bachelor in Software Engineering - University of Tehran** 2006–2010

*Thesis:* Finding Social Network Graphs in News Websites

*Supervisor:* [Dr. Masoud Asadpour](#)

## Work Experience

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**Postdoctoral Fellow - McGill University, Canada** 2019–present

Working on 1) designing a visualization platform to represent cancer patient pathway and waiting times and 2) developing a Patient-Reported Outcome questionnaire to measure recovery after abdominal surgeries.

*Supervisor:* [Dr. Julio Fiore](#) *Project Leader:* [Dr. Liane Feldman](#)

**Data Visualization Researcher - Alberta Health Services - W21C, Canada** 2015–2018

Worked on an innovative project for designing a care plan for chronic patients, where I conducted literature reviews and field studies to inform the design of data visualizations as part of the care plan.

*Project Leader:* [Dr. William Ghali](#)

**Researcher - Pain Studies Lab, School of Interactive Arts & Technology, Canada** 2014–2015

Collaborated in several research projects on designing technologies for people who live with chronic pain, their pain specialists, and healthcare professionals.

*Supervisor:* [Dr. Diane Gromala](#)

**Junior Web developer - Lexdata, Australia** 2012–2013

Worked as a web developer on designing and developing accessible websites for government organization.

*Manager:* [Michael Hall](#)

**Research Assistance - CSIRO, Australia** Summer Internship 2012

Co-designed a controlled user study to evaluate the use of iPads as a controller in a collaborative setting.

*Supervisor:* [Matt Adcock](#)

## Board Membership

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**Data Scientist - McGill University Health Center Quality Improvement Board** 2020 - present

As the data scientist on the board, I visually analyze data for quality improvement purposes.

## Journal Publications (J)

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J3. Maryam Mozafarinia, **Fateme Rajabiyazdi**, Marie-Josée Brouillette, Lesley K. Fellows Nancy E. Mayo Development and Usability of a Feedback Tool, “My Personal Brain Health Dashboard”, to Improve Setting of Self-Management Goals Among People Living with HIV in Canada. *Quality of Life Research Journal*, Accepted for Publication on June 3<sup>rd</sup> 2020.

J2. Maryam Mozafarinia, **Fateme Rajabiyazdi**, Marie-Josée Brouillette, Lesley Fellows, Bärbel Knäuper, Nancy E. Mayo Effectiveness of a Personalized Health Profile on Specificity of Self-Management Goals Among People Living with HIV in Canada: A Protocol for a Blinded Pragmatic Randomized Controlled Trial. *MNI Open Res* 2020, 4:1 <https://doi.org/10.12688/mniopenres.12846.1> [Link](#).

J1. Charbel El-Kefraoui, Ghadeer Olleik, Marc-Aurele Chay, Araz Kouyoumdjian, Philip Nguyen-Powanda, **Fateme Rajabiyazdi**, Uyen Do, Alexa Derksen, Tara Landry, Alexandre Amar-Zifkin, Ramanakumar Agnihotram, Marc Martel, Gabriele Baldini, Liane S Feldman, and Julio F Fiore Jr. Opioid Versus Opioid-free Analgesia after Surgical Discharge: Protocol for a Systematic Review and Meta-analysis. *BMJ Open* 2020; 10:e035443. doi: 10.1136/bmjopen-2019-035443. [Link](#).

## Conference Publications (C)

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C8\*. **Fateme Rajabiyazdi**, Charles Perin, Lora Oehlberg, and Sheelagh Carpendale. Exploring the Design of Patient-Generated Data Visualizations. Accepted for Publication January 2020, In *Proceedings of the 46th Graphics Interface Conference, GI’20*, (12 pages - page numbers to be announced), 2020. [Link](#)

C7. **Fateme Rajabiyazdi**, Charles Perin, Jo Vermeulen, Diane Gromala, and Sheelagh Carpendale. Differences That Matter: In-Clinic Communication Challenges. In *Proceedings of the 2017 Pervasive Computing Technologies for Healthcare*, pages 251-260. ACM, 2017. [DOI](#)

C6. **Fateme Rajabiyazdi**, Charles Perin, Lora Oehlberg, and Sheelagh Carpendale. The Challenges of Individuality to Technology Approaches to Personally Collected Health Data. In *Proceedings of the 2017 Pervasive Computing Technologies for Healthcare*, pages 448-451. ACM, 2017. [DOI](#)

C5. **Fateme Rajabiyazdi**. Designing and Developing Technologies to Facilitate Clinician-Patient Communication. In *Proceedings of the 2016 International Conference on on Interactive Surfaces and Spaces*, pages 19-24. ACM, 2016. [DOI](#)

C4. Alice Thudt, Jagoda Walny, Charles Perin, **Fateme Rajabiyazdi**, Lindsay MacDonald, Riane Vardeleon, Saul Greenberg, and Sheelagh Carpendale. Assessing the Readability of Stacked Graphs. In *Proceedings of the 42nd Graphics Interface Conference, GI’16*, pages 167–174, 2016. [DOI](#)

C3. **Fateme Rajabiyazdi**, Jagoda Walny, Carrie Mah, John Brosz, and Sheelagh Carpendale. Understanding Researchers’ Use of a Large, High-Resolution Display Across Disciplines. In *Proceedings of the 2015 International Conference on Interactive Tabletops & Surfaces*, pages 107–116. ACM, 2015. [DOI](#)

C2. **Fateme Rajabiyazdi** and Tom Gedeon. Hand Grip Strength on a Large PDA: Holding While Reading Is Different from a Functional Task. In *Proceedings of the 2012 Sixth International Conference on Complex, Intelligent, and Software Intensive Systems*, pages 475–480, 2012. [DOI](#)

C1. **Fateme Rajabiyazdi** and Tom Gedeon. Comparing User Performance on an iPad to a 17-inch BackPad. In *Proceedings of the 2012 Sixth International Conference on Complex, Intelligent, and Software Intensive Systems*, pages 469–474, 2012. [DOI](#)

## Peer Reviewed Abstracts and Posters (AP)

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AP7. **Fateme Rajabiyazdi**, Aditya Pal, Roshni Alam, Joel Montanez, Susan Law, Lawrence Lee, Nicolò Pecorelli, Watanabe Yusuke, Chiavegato D Luciana, Massimo Falconi, Hirano Satoshi, Nancy E Mayo, Liane S Feldman, and Julio F Fiore Jr. What Does ‘Recovery’ Mean To Patients Undergoing Abdominal Surgery? An International Qualitative Study. Accepted for poster presentation at the Society of American Gastrointestinal and Endoscopic Surgeons, Cleveland, OH, USA, 2020.

AP6. Charbel El-Kefraoui, Ghadeer Olleik, Marc-Aurele Chay, Araz Kouyoumdjian, Philip Nguyen-Powanda, **Fateme Rajabiyazdi**, Uyen Do, Alexa Derksen, Tara Landry, Alexandre Amar-Zifkin, Ramanakumar Agnihotram, Marc Martel, Gabriele Baldini, Liane S Feldman, and Julio F Fiore Jr. Opioid Versus Opioid-free Analgesia after Surgical Discharge: a Systematic Review and Meta-analysis. Poster presentation at Experimental Surgery Research Day, Montreal, Canada, 2019. [\\*Best poster award](#).

AP5. Seyedeh Maryam Mozafarinia, **Fateme Rajabiyazdi**, and Nancy Mayo. Measuring quality of health outcome goals using text mining techniques. Poster presentation at International Society for Quality of Life research, 26th annual conference, San Diego, USA, S126-S126, Springer, 2019.

AP4. Seyedeh Maryam Mozafarinia, **Fateme Rajabiyazdi**, and Nancy Mayo. Text mining application for measuring quality of health outcome goals. Poster presentation at Centre for Outcome Research & Evaluation Research Day, Montreal, Canada, 2019.

AP3. **Fateme Rajabiyazdi**, Charles Perin, Lora Oehlberg, and Sheelagh Carpendale. Personal Patient-Generated Data Visualizations for Diabetes Patients. Poster presentation at the *IEEE Information Visualization Conference*, Berlin, Germany, 2018. [Link](#)

AP2. Julie Babione, **Fateme Rajabiyazdi**, Charles Perin, Joseph Tropiano, Megan Cosby, Maria Santana, Jaime Kaufman, Sheelagh Carpendale, William Ghali, and Peter Sargious. Identifying Opportunities for Innovation in Patient-Centred Care Plans Through User-Centred Design Research. Poster presentation at the *Patient Oriented Research Summer Institute Conference*, Canada, Calgary, 2016.

AP1. **Fateme Rajabiyazdi**, Charles Perin, and Sheelagh Carpendale. WEST: Visualizing non-Emergency Surgery Waiting Times. Poster presentation at the *IEEE Information Visualization Conference*, Chicago, USA, 2015. [Link](#)

## Peer Reviewed Workshop Papers (W)

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W3. **Fateme Rajabiyazdi**, Charles Perin, Julie Babione, Joseph Tropiano, Maria Santana, Jaime Kaufman, William Ghali, Peter Sargious, and Sheelagh Carpendale. Challenges Involving Patients in their Care Plan from Clinicians’ Perspectives. In *Proceedings of the CHI Workshop on Interactive Systems in Healthcare (WISH’16)*, ACM, 2016. [Link](#)

W2. Xin Tong, Diane Gromala, Lyn Bartram, **Fateme Rajabiyazdi**, and Sheelagh Carpendale. Evaluating the Effectiveness of Three Physical Activity Visualizations - How People Perform vs. Perceive. In *Electronic Proceedings of the IEEE Information Visualization Conference*, 2015.

W1. Tamara Flemisch, **Fateme Rajabiyazdi**, Mona Hosseinkhani, and Sheelagh Carpendale. NeckLan: Language as Jeweller. In *Electronic Proceedings of the IEEE Information Visualization Conference*, 2015. [Link](#)

## Thesis (T)

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T3. **Fateme Rajabiyazdi**. Exploring the Design of Visualizations to Facilitate Patient-Provider Communication. *PhD Thesis, University of Calgary, 2018*. [Link](#)

T2. **Fateme Rajabiyazdi**. Design and Development of Interface for Different Tablet Sizes. *Master Thesis, School of Computer Science, Australian National University, 2012*. [Link](#)

T1. **Fateme Rajabiyazdi**. Finding Social Network Graphs in News Websites, *Bachelor Thesis (in Persian), School of Electrical and Computer Engineering, University of Tehran, 2010*.

## Grant Collaborations - Co-Investigator

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**CIHR Planning and Dissemination Grant 2019**, Transforming Post-Fracture Acute Pain Management in Older Men and Women through Mobile Health Application, PI: Dr. Suzanne Morin.

**CIHR Project Grant Fall 2019**, Opioid versus opioid-free analgesia after surgical discharge: a systematic review and meta-analysis, PI: Dr. Julio Fiore.

## Scholarship and Awards

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<b>Postdoctoral Scholarship</b> , Fonds de la Recherche du Quebec Sante (FRQS), 2020-2022	\$90,000
<b>Computer Science Department Research Award</b> , University of Calgary, 2017-2018	\$11,000
<b>W21C Health Services Research Scholarship</b> , Alberta Health Services, 2016-2017	\$30,000
<b>W21C Health Services Research Scholarship</b> , Alberta Health Services, 2015-2016	\$30,000
<b>Computer Science Department Research Award</b> , University of Calgary, 2016-2017	\$8,000
<b>Faculty of Graduate Studies Travel Award</b> , University of Calgary, 2015	\$1,000
<b>Computer Science Department Research Award</b> , University of Calgary, 2015-2016	\$2,000
<b>Computer Science Department Research Award</b> , University of Calgary, 2014-2015	\$8,000

## Teaching Experience

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<b>Guest Lecturer</b> - <i>Introduction to Information Visualization</i> - University of Calgary	Fall 2017
<b>Guest Lecturer</b> - <i>Visualization and Visual Analytics</i> - University of Calgary	Fall 2016
<b>Course Developer &amp; Teaching Assistant</b> - <i>Thinking with Data</i> - University of Calgary	Summer 2017
<b>Teaching Assistant</b> - <i>Introduction to Information Visualization</i> - University of Calgary	Fall 2017
<b>Teaching Assistant</b> - <i>Visualization and Visual Analytics</i> - University of Calgary	Fall 2016
<b>Teaching Assistant</b> - <i>Human-Computer Interaction</i> - University of Calgary	Winter 2015
<b>Teaching Assistant</b> - <i>Introduction to CS Application Software</i> - University of Calgary	Winter 2014
<b>Teaching Assistant</b> - <i>eCommerce</i> - Australian National University	Winter 2012
<b>Teaching Assistant</b> - <i>Microprocessors</i> - University of Tehran	Winter 2009

## Community and Volunteer Teaching

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<b>Workshop Tutor</b> - <b>Computer Science for Young Women</b> - University of Calgary	Summer 2014
<b>Workshop Tutor</b> - <b>Let's Talk Science (LTS)</b> - University of Calgary	Winter 2015

## Supervision and Mentoring

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### Co-Supervision

Makena Pook. Master of Experimental Surgery McGill University	2020 - present
Dr. Najla Al Ghaithi. Surgery Resident McGill University	2020 - present
Rachel Szwimer. Medical student McGill University	2020 - present
Yossef Levin. Medical student McGill University	2020 - present
Olivia Monton. Medical student McGill University	2020 - present
Vincent Brissette. Medical student McGill University	2020 - present
Aditya Pal. Medical Student McGill University	2019 - present

### Mentorship

Charbel El-Kefraoui. Master of Experimental Surgery McGill University	2019 - present
Uyen Do. Master of Experimental Surgery McGill University	2019 - present
Tharaniya Vallipuram. Medical Student McGill University	Fall 2019
Andrew Miller. Medical Student McGill University	Fall 2019

### Student Course Project Leader

Thinking with Data. University of Calgary	Summer 2017
Human-Computer Interaction. University of Calgary	Winter 2015
Microprocessors. University of Tehran	Winter 2009

## Invited Talks

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**Department of Computer Science & Software Engineering, Concordia University** April 2020

*Title:* Designing and developing information visualization tools to support patients with their medical care

**Minimally Invasive Surgery Research Day, McGill University Health Center** October 2019

*Title:* What does ‘recovery’ mean to patients undergoing abdominal surgery?

**Human Factors Interest Group, University of Toronto** April 2018

*Title:* Designing and Developing Tools to Enhance Patient-Physician Communication - [Link](#)

**Ward of the 21<sup>st</sup> Century Symposium, Alberta Health Services** October 2015

*Title:* WESt: Visualizing non-Emergency Surgery Waiting Times

## Knowledge and Technology Transfer

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**MyCareCompass** - under development [Link](#) 2018 - present

MyCareCompass is the first platform designed for patients with chronic conditions in Alberta to manage their care. My Ph.D. reserach studies and my data visualization designs are incorporated into this platform.

## Software Development and Design

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**WEST: Visualizing Surgery Waiting Time** [Link](#) - [Video](#) 2015

WESt is an interactive visualization tool displaying surgery waiting times across British Columbia. This project is motivated by the long waiting time for surgeries in BC.

**Leitner System App** [Link](#) 2014

Leitner app is designed to help people memorize flashcards bearing information as words or numbers. This app employs the Leitner system, repetition, where cards are reviewed at the increasing interval.

## International collaborations

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**Research Collaborator, Oxford Brooks University, United Kingdom** 2019 - 2020

Centre for Movement, Occupational and Rehabilitation Science with Dr. Mansoubi and Dr. Shelly Coe.

**Research Collaborator, Indiana University, United States** 2015 - 2017

Dr. Haley Macleod.

## Academic Services

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**Program Committee** 2015 - present

IEEE Information Visualization (InfoVis) Conference 2020 - 2021 - Short Papers

McGill University Health Center Injury, Repair, Recovery Annual Research Day 2020 - Posters

McGill University Experimental Surgery Research Day 2019 - Best Poster Award

ACM Intelligent User Interfaces (IUI) Conference 2019 - 2020 - Short and Long Paper

ACM Intelligent User Interfaces (IUI) Conference 2015 - Best Poster Award

<b>Conference Chair</b>	2016 and 2019
ACM Interactive Surfaces and Spaces (ISS) Conference 2019 - Video Preview Chair	
ACM Interactive Surfaces and Spaces (ISS) Conference 2016 - Mobile App Chair	
<b>Conference Paper Reviewer</b>	2015 - present
AMIA 2017 - 2020, DIS 2018 - 2019, CHI 2016 - 2020, TEI 2017, IUI 2016, CSCW 2016, ISS 2015	
<b>Journal Paper Reviewer</b>	2019
Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT) Journal (2 articles)	
Value in Health Journal (1 article)	
<b>Conference Student Volunteer</b>	2011 - 2018
CHI 2018, CHI 2016, ITS 2015, OZCHI 2011	