

Fateme Rajabiyazdi | Curriculum Vitae

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Education

University of Calgary, PhD Candidate in Computer Science **Canada**

Thesis: Exploring the Design of Visualizations to Facilitate Patient-Provider Communication, 2014–2018

Supervisors: Dr. Sheelagh Carpendale and Dr. Lora Oehlberg.

Member of Interaction lab and Innovis lab groups at the University of Calgary.

Australian National University, Master of Computer Science **Australia**

Thesis: Design and Development of Interface for Different Tablet Sizes, 2010–2012

Supervisors: Dr. Tom Gedeon and Dr. Duncan Stevenson

University of Tehran, Bachelor of Software Engineering **Iran**

Thesis: Finding Social Network Graphs in News Websites, 2006–2010

Supervisor: Dr. Masoud Asadpour

Publications

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.

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.

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.

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.

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.

Peer Reviewed Workshop Papers

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.

Fateme Rajabiyazdi. Designing and Developing Technologies to Facilitate Clinician-Patient Communication, In *Proceedings of the 2016 International Conference on Interactive Surfaces and Spaces*, pages 19–24. ACM, 2016.

Fateme Rajabiyazdi, Charles Perin, Julie Babione, Joseph Tropiano, Maria Santana, Jaime Kaufman, William Ghali, Peter Sargious, Sheelagh Carpendale. Challenges Involving Patients in their Care Plan from Clinicians' Perspectives, In *Electronic Proceedings of the Workshop on Interactive Systems in Healthcare*, ACM, 2016.

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

Tamara Flemisch, **Fateme Rajabiyazdi**, Mona Hosseinkhani, Sheelagh Carpendale. NeckLan: Language as Jeweller, In *Electronic Proceedings of the IEEE Transactions on Visualization and Computer Graphics*, 2015.

Peer Reviewed Posters

Fateme Rajabiyazdi, Charles Perin, Lora Oehlberg, Sheelagh Carpendale. Personal Patient-Generated Data Visualizations for Diabetes Patients, Presented in *the IEEE Transactions on Visualization and Computer Graphics*, Berlin, Germany, 2018.

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

Fateme Rajabiyazdi, Charles Perin, Sheelagh Carpendale. WESSt: Visualizing non-Emergency Surgery Waiting Times, Presented in *the IEEE Transactions on Visualization and Computer Graphics*, Chicago, USA, 2015.

Thesis

Fateme Rajabiyazdi. Exploring the Design of Visualizations to Facilitate Patient-Provider Communication. *PhD Thesis*

Establishing strong patient-provider communication during clinical visits can have positive impacts on patient health outcomes. On the other hand, miscommunication between patients and healthcare providers can cause harm or in extreme cases cause death to patients. Considering the external factors such as limited time, inefficient clinical environments, and inadequate medical information exchange, it is difficult to facilitate a smooth communication. In this thesis, we focus on exploring the design of visualizations to facilitate communication between healthcare providers and patients during in-clinic visits.

Fateme Rajabiyazdi. Design and Development of Interface for Different Tablet Sizes. *Master Thesis*
I manipulated a 17-inch MacBook configuration to a tablet mock-up. I designed and developed a new interface for the tablet mock-up and later I evaluated the design in a lab study setting. , School of Computer Science, Australian National University, 2012.

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

Scholarship and Awards

Computer Science Dept. Research Award: University of Calgary, \$11,000	01/2018 - 04/2018
Ward of 21st Century, Alberta Health Services: \$30,000	08/2016 - 08/2017
Ward of 21st Century, Alberta Health Services: \$30,000	08/2015 - 08/2016
Computer Science Dept. Research Award: University of Calgary, \$8,000	09/2016 - 04/2017
Faculty of Graduate Studies Travel Award: University of Calgary, \$1,000	07/2015
Computer Science Dept. Research Award: University of Calgary, \$2,000	09/2015 - 04/2016
Computer Science Dept. Research Award: University of Calgary, \$8,000	09/2014 - 04/2015

Work Experience

Data Visualization Researcher/PhD Student - Alberta Health Services, W21C

Canada

Project Leader: Dr. William Ghali

2015-2018

W21C is a research institute working with academia, government, and industry to bring new ideas into health care. I was involved in an innovative project for designing a care plan for patients with chronic conditions. As part of this project, I conducted extensive literature review and field studies understanding patients' and physicians' perspectives to inform the process of designing technologies.

Visitor Researcher - Pain Studies Lab

Canada

Supervisor: Dr. Diane Gromala

2014-2015

In the Pain Studies Lab lab, the research group studies, invents and designs technologies for people who live with chronic pain, their pain physicians and healthcare professionals. I collaborated with Dr. Gromala and her students in several projects during my visit.

Junior Web developer - Lexdata

Australia

Manager: Michael Hall

2012-2013

Lexdata is a document and information management company that provides specialist solutions to law firms, government departments and corporate organisations around Australia. As a web developer, I was working on designing and developing accessible websites using JavaScript, HTML, XML, and CSS.

Research Assistance - CSIRO

Australia

Supervisor: Dr. Matt Adcock

2012

The Commonwealth Scientific and Industrial Research Organization is the federal government agency for scientific research in Australia. During my visit, I was involved in the process of designing a controlled user study for a large screen technology to evaluate the use of iPad in people's personal view on the screen in a collaborative setting.

Intern - Australian National University

Australia

Supervisor: Dr. Rob Mahoney

2009

During my internship, I worked on developing code with MATLAB for nonlinear attitude filter to remove noise in the data. I worked with attitude kinematics on the group of rotation matrices and the unit quaternion.

Academic Services

Program Committee: Intelligent User Interfaces 2019

Video Chair: Interactive Surfaces and Spaces Conference 2019

Mobile App Chair: Interactive Surfaces and Spaces Conference 2016

Best Poster Award Committee: Intelligent User Interfaces 2015

Student Volunteer: CHI Conference 2018 and 2016, ITS Conference 2015, OZCHI Conference 2011

Paper Reviewer: AMIA18-19, DIS19, TEI18, CHI15-18, ITS15, IUI15, OZCHI12

Teaching Experience

Introduction to Information Visualization - CPSC583

University of Calgary

Guest Lecturer and Teaching Assistance

Fall 2017

Thinking with Data - SCIE201

University of Calgary

Teaching Assistance

Summer 2017

Visualization and Visual Analytics - CPSC599

University of Calgary

Guest Lecturer and Teaching Assistance

Winter 2016

Human Computer Interaction - CPSC481

University of Calgary

Project Leader

Winter 2015

Introduction to CS Application Software - CPSC203

University of Calgary

Teaching Assistance

Winter 2014