

# Teddy Seyed, curriculum vitae

ASE Lab / RICE Lab / Interactions Lab  
Department of Computer Science  
University of Calgary

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## summary

- Multidisciplinary Technologist and Researcher with 5+ years of experience in software and hardware product lifecycle (idea conception to shipping)
- Strong experience and understanding of end-to-end hardware development & manufacturing processes in Asia and North America
- Strong interest and experience in wearables, fashion-tech, modular devices, and prototyping tools
- Completed Canada's first Entrepreneurial PhD (in Computer Science)

## education

### Entrepreneurial PhD in Computer Science, University of Calgary, 2013 - 2019

Human Computer Interaction: *Entrepreneurial Thinking in the Design of Ubiquitous Computing*  
PhD Advisors: Dr. Frank Maurer, Dr. Anthony Tang, Dr. Chad Saunders and Dr. Xing-Dong Yang

### MSc Computer Science, University of Calgary, 2011 - 2013

Human Computer Interaction: *Examining User Experience in Multi-Display Environments*  
Advisors: Dr. Frank Maurer, Dr. Mario Costa Sousa, Dr. Anthony Tang

### BSc Computer Science, University of Calgary, 2007 - 2011

Concentration in Software Engineering

## publications

### peer-reviewed conference proceedings

23. Jun Gong, Yu Wu, Lei Yan, **Teddy Seyed**, Xing-Dong Yang (2019). Tessutivo: Contextual Interactions on Interactive Fabrics with Inductive Sensing. *In Proceedings of the ACM Symposium on User Interface Software & Technology (UIST'19)*, New Orleans, LA, USA.
22. Te-Yen Wu, Jun Gong, **Teddy Seyed**, Xing-Dong Yang (2019). Proxino: Enabling Prototyping of Virtual Circuits With Physical Proxies. *In Proceedings of the ACM Symposium on User Interface Software & Technology (UIST'19)*, New Orleans, LA, USA.
21. **Teddy Seyed**, Anthony Tang (2019). Mannequette: Understanding and Enabling Collaboration and Creativity on Avant-garde Fashion-Tech Runways. *In Proceedings of the 2019 Designing Interactive Systems Conference (DIS '19)*, San Diego, CA, USA.  
**🏆 BEST PAPER HONORABLE MENTION**
20. Shan-Yuan Teng, Da-Yuan Huang, Chi Wang, Jun Gong, **Teddy Seyed**, Xing-Dong Yang, Bing-Yu Chen (2019). Aarnio: Passive Kinesthetic Force Output for Foreground Interactions on an Interactive Chair. *In Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems (CHI '19)*, Glasgow, UK.  
**🏆 BEST PAPER HONORABLE MENTION**

19. Jo-Yu Lo, Da-Yuan Huang, Tzu-Sheng Kuo, Chen-Kuo Sun, Jun Gong, **Teddy Seyed**, Xing-Dong Yang, Bing-Yu Chen (2018). AutoFritz: Autocomplete for Prototyping Virtual Breadboard Circuits. *In Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems (CHI '19)*, Glasgow, UK.
18. Da-Yuan Huang, **Teddy Seyed**, Linjun Li, Jun Gong, Zhihao Yao, Yuchen Jiao, Xiang 'Anthony' Chen, Xing-Dong Yang (2018). Orecchio: Extending Body-Language through Actuated Static and Dynamic Auricular Postures. *In Proceedings of the ACM Symposium on User Interface Software & Technology (UIST'18)*, Berlin, Germany.
17. Jun Gong, Xin Yang, **Teddy Seyed**, Josh Urban Davis, Xing-Dong Yang (2018). Indutivo: Tangible Input on Smartwatches using Inductive Sensing. *In Proceedings of the ACM Symposium on User Interface Software & Technology (UIST'18)*, Berlin, Germany.
16. Jun Gong, Da-Yuan Huang, **Teddy Seyed**, Te Lin, Tao Hou, Xin Liu, Molin Yang, Boyu Yang, Yuhan Zhang, Xing-Dong Yang (2018). Jetto: Using Lateral Force Feedback for Smartwatch Interactions. *In Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI '18)*, Montreal, Canada.
15. Jun Gong, Zheer Xu, Qifan Guo, **Teddy Seyed**, Xiang 'Anthony' Chen, Xiaojun Bi, Xing-Dong Yang (2018). WrisText: One-handed Text Entry on Smartwatch using Wrist Gesture. *In Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI '18)*, Montreal, Canada.  
**🏆 BEST PAPER HONORABLE MENTION**
14. **Teddy Seyed**, Xing-Dong Yang, Daniel Vogel (2017). A Modular Smartphone for Lending. *In Proceedings of the ACM Symposium on User Interface Software & Technology (UIST'17)*, Quebec City, Canada.  
**🏆 BEST TALK AWARD**
13. **Teddy Seyed**, Xing-Dong Yang, Daniel Vogel (2016). Doppio: A Reconfigurable Dual-Face Smartwatch for Tangible Interaction. *In Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI '16)*, San Jose, CA, USA.
12. Edwin Chan, **Teddy Seyed**, Wolfgang Stuerzlinger, Xing-Dong Yang, Frank Maurer (2016). User Elicitation on Single-hand Microgestures. *In Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI '16)*, San Jose, CA, USA.  
**🏆 BEST PAPER HONORABLE MENTION**
11. **Teddy Seyed**, Alaa Azazi, Edwin Chan, Yuxi Wang, Frank Maurer (2015). SoD-Toolkit: A Toolkit for Interactively Prototyping and Developing Multi-Sensor, Multi-Device Environments. *In Proceedings of the ACM Conference on Interactive Tabletops and Surfaces (ITS 2015)*, Madeira, Portugal.
10. **Teddy Seyed**, Xing-Dong Yang, Anthony Tang, Saul Greenberg, Jiawei Gu, Bin Zhu, Xiang Cao (2015). CipherCard: A Token-Based Approach Against Camera-Based Shoulder Surfing Attacks on Common Touchscreen Devices. *In Proceedings of the IFIP conference on Human-Computer interaction (INTERACT 2015)*, Bamberg, Germany.
9. Apoorve Chokshi, **Teddy Seyed**, Francisco Marinho Rodrigues, Frank Maurer (2014). ePlan Multi-Surface: A Multi-Surface Environment for Emergency Response Planning Exercises. *In Proceedings of the ACM Conference on Interactive Tabletops and Surfaces (ITS 2014)*, Dresden, Germany.
8. Sydney Pratte, **Teddy Seyed**, Frank Maurer (2014). Exploring Multi-Surface Interactions in Retail Environments. *In Proceedings of the ACM Conference on Interactive Tabletops and Surfaces (ITS 2014)*, Dresden, Germany.
7. Francisco Marinho Rodrigues, **Teddy Seyed**, Frank Maurer, Sheelagh Carpendale (2014). Bancada: Using Mobile Zoomable Lenses for Geospatial Exploration. *In Proceedings of the ACM Conference on Interactive Tabletops and Surfaces (ITS 2014)*, Dresden, Germany.

6. **Teddy Seyed**, Frank Maurer (2014). The Geospatial Domain & Multi-Surface Environments. *In Proceedings of the Open Geospatial Consortium Academic Summit 2014 (OGC 2014)*, Calgary, AB, Canada.
5. **Teddy Seyed**, Francisco Marinho Rodrigues, Frank Maurer, Anthony Tang (2014). Medical imaging specialists and 3D: a domain perspective on mobile 3D interactions. *In CHI '14 Extended Abstracts on Human Factors in Computing Systems (CHI EA '14)*, Toronto, ON, Canada.
4. **Teddy Seyed**, Mario Costa Sousa, Frank Maurer, Anthony Tang (2013). SkyHunter: a Multi-Surface Environment for Supporting Oil and Gas Exploration. *In Proceedings of the ACM Conference on Interactive Tabletops and Surfaces (ITS 2013)*, St. Andrews, Scotland, United Kingdom.
3. **Teddy Seyed**, Chris Burns, Mario Costa Sousa, Frank Maurer (2013). From Small Screens to Big Displays: Understanding Interaction in Multi-Display Environments. *In Proceedings of the ACM International Conference on Intelligent User Interfaces (IUI'13)*, Santa Monica, California, USA, 2013.
2. **Teddy Seyed**, Chris Burns, Mario Costa Sousa, Frank Maurer, Anthony Tang (2012). Eliciting usable gestures for multi-display environments. *In Proceedings of the ACM Conference on Interactive Tabletops and Surfaces (ITS 2012)*, Cambridge, MA, United States.
1. Ali Hosseini-Khayat, **Teddy Seyed**, Chris Burns, Frank Maurer (2011). Low-Fidelity Prototyping of Gesture-based Applications. *In Proceedings of the ACM SIGCHI Symposium on Engineering Interactive Computing Systems (EICS 2011)*, Pisa, Italy, 2011.

#### posters and workshops

21. **Teddy Seyed**, Peli de Halleux, Michal Moskal, James Devine, Joe Finney, Steve Hodges, Thomas Ball (2019). MakerArcade: Using Gaming and Physical Computing for Playful Making, Learning, and Creativity. *In CHI '19 Extended Abstracts on Human Factors in Computing Systems (CHI EA '19)*, Glasgow, UK.
20. **Teddy Seyed** (2019). Technology Meets Fashion: Exploring Wearables, Fashion Tech and Haute Tech Couture. *In CHI '19 Extended Abstracts on Human Factors in Computing Systems (CHI EA '19)*, Glasgow, UK.
19. Edwin Chan, **Teddy Seyed**, Frank Maurer (2016). ERWear: Wearable System Design through the Lens of First Responders. *In ACM on Interactive Surfaces and Spaces (ISS 2016)*, Niagara Falls, ON, Canada, 2016.
18. Edwin Chan, **Teddy Seyed**, Frank Maurer (2016). Using Area Learning in Spatially-Aware Ubiquitous Environments. *In 2016 Symposium on Spatial User Interaction (SUI 2016)*, Tokyo, Japan, 2016.
17. Sydney Pratte, **Teddy Seyed**, Frank Maurer (2016). Acquario: A Tangible Spatially-Aware Tool for Information Interaction and Visualization. *In 2016 Symposium on Spatial User Interaction (SUI 2016)*, Tokyo, Japan, 2016.
16. Sydney Pratte, **Teddy Seyed**, Frank Maurer (2015). Projected Pixels: Exploring Projection Feedback in Multi-Surface Environments. *In ITS 2015 Workshop on Collaboration meets Interactive Surfaces (CmIS)*, Madeira, Portugal.
15. **Teddy Seyed**, Anthony Tang, Frank Maurer, (2015). Collection to Interaction: Designing for the Internet of Self within Ubiquitous Environments. *In CHI'15 Workshop on Design Led Inquiry For Mobile Lives*, Seoul, Korea.
14. Sydney Pratte, **Teddy Seyed**, Frank Maurer (2015). Projected Pixels: Exploring Techniques for Feedback in Projection-Enhanced Multi-Surface Environments. *In CSCW'15 Workshop on Supporting Local-Remote Collaboration*, Vancouver, BC, Canada.
13. Alaa Azazi, **Teddy Seyed**, Frank Maurer (2015). A Unified Model for Mapping Gestures to Tracking Sensors in Multi-Surface Environments. *In CSCW'15 Workshop on Supporting Local-Remote Collaboration*, Vancouver, BC, Canada.

12. **Teddy Seyed**, Francisco Marinho Rodrigues, Frank Maurer, Anthony Tang (2014). Poster: Exploring 3D volumetric medical data using mobile devices. *In Proceedings of the IEEE Symposium on 3D User Interfaces (3DUI 2014)*, Minneapolis, MN, United States.
11. Alaa Azazi, **Teddy Seyed**, Frank Maurer (2014). Investigating inertial measurement units for spatial awareness in multi-surface environments. *In Proceedings of the ACM Symposium on Spatial User Interaction (SUI 2014)*, Honolulu, HI, United States.
10. Sydney Pratte, **Teddy Seyed**, Frank Maurer (2014). Examining Customer Collaboration in Multi-Surface Retail Environments. *In ITS 2014 Workshop on Collaboration meets Interactive Surfaces (CmIS)*, Dresden, Germany.
9. Francisco Marinho Rodrigues, **Teddy Seyed**, Frank Maurer (2014). Bancada: Mobile Zoomable Lenses for Collaborative Geospatial Exploration. *In ITS 2014 Workshop on Collaboration meets Interactive Surfaces (CmIS)*, Dresden, Germany.
8. Alaa Azazi, **Teddy Seyed**, Frank Maurer (2014). From Room Instrumentation to Device Instrumentation: Assessing an Inertial Measurement Unit for Spatial Awareness. *In ITS 2014 Workshop on Collaboration meets Interactive Surfaces (CmIS)*, Dresden, Germany.
7. Francisco Marinho Rodrigues, **Teddy Seyed**, Approve Chokshi, Frank Maurer (2014). Gesture Design and Feasibility in Emergency Response Environments. *In CHI 2014 Workshop on Gesture-based Interaction Design: Communication and Cognition*, Toronto, ON, Canada.
6. Apoorve Chokshi, **Teddy Seyed**, Francisco Marinho Rodrigues, Frank Maurer (2014). Managing Peripheral Interaction in Emergency Response Environments. *In CHI 2014 Workshop on Peripheral Interaction: Shaping the Research and Design Space*, Toronto, ON, Canada.
5. Alaa Azazi, **Teddy Seyed**, Fadi Botros, Daniel Sabourin, Edwin Chan, Frank Maurer (2013). Using Multiple Kinects to Build Larger Multi-Surface Environments. *In ITS 2014 Workshop on Collaboration meets Interactive Surfaces (CmIS)*, St. Andrews, Scotland.
4. **Teddy Seyed**, Chris Burns, Patrick King, Francisco Marinho Rodrigues, Mario Costa Sousa, Frank Maurer (2013). MRI Table Kinect: A multi-surface application for exploring volumetric medical imagery. *In CHI 2013 Workshop on Safer Interaction in Medical Devices (MediCHI'13)*, Paris, France.
3. Chris Burns, **Teddy Seyed**, Theodore Hellmann, Mario Costa Sousa, Frank Maurer (2013). A Usable API for Multi-Surface Systems. . *In CHI 2013 Workshop on Envisioning Future Collaborative Interactive Spaces (BLEND'13)*, Paris, France.
2. Chris Burns, **Teddy Seyed**, Theodore Hellmann, Jennifer Ferreira, Frank Maurer (2012). Towards a Usable API for Constructing Interactive Multi-Surface Systems. *In AVI 2012 Workshop on Infrastructure and Design Challenges of Coupled Display Visual Interfaces (PPD 2012)*, Capri, Italy.
1. Chris Burns, **Teddy Seyed**, Ken Bradley, Aaron Balasch, Frank Maurer, Mario Costa Sousa (2012). Interpretative Visualization of Fused Hydrocarbon Microseep and Reservoir Data. *In GeoConvention 2012: Vision*, Calgary, AB, Canada.

## book chapters

2. **Teddy Seyed**, Frank Maurer. (2018) Multisurface Environments, in *The Wiley Handbook of Human Computer Interaction* (eds K. L. Norman and J. Kirakowski), John Wiley & Sons, Ltd, Chichester, UK. doi: 10.1002/9781118976005.ch22
1. Sydney Pratte, **Teddy Seyed**, Alaa Azazi, Edwin Chan, Yuxi Wang, Frank Maurer (2016). *Society of Devices Toolkit and Projected Pixels. SURFNET - Designing Digital Surface Applications.*

## scholarships

### **Department Research Award, 2018**

\$10,000 scholarship awarded by the University of Calgary, Department of Computer Science based on academic research and merit.

### **Generation Google Scholarship, 2016**

\$5,000 scholarship awarded by Google, based on leadership skills, research potential and academic merit.

### **Alexander Graham Bell Canada Graduate Scholarship (CGSD3), 2014 – 2017**

\$105,000 over 36 months, based on research potential and academic merit. Regarded as one of Canada's most prestigious scholarships.

### **Alberta Innovates Technology Futures PhD Scholarship, 2014 – 2017**

\$36,000 over 36 months, based on research potential and academic merit. Limited amount due to acceptance of CGSD3.

### **GRAND Scholars PhD Scholarship, 2014 – 2015**

\$10,000 over 1 year based on research potential and academic merit.

### **Hunter Centre for Entrepreneurship and Innovation MBA Scholarship, 2013-2014**

\$3,214 over 1 year, based on potential and interest in MBA program at the University of Calgary's Haskayne School of Business.

### **Alberta Graduate Student Scholarship, 2013-2014**

\$3,000 on-time scholarship based on research and academic merit.

### **Queen Elizabeth II Scholarship, 2012-2013**

\$10,800 over 1 year, based on research potential and academic merit.

### **Queen Elizabeth II Scholarship, 2011-2012**

\$10,800 over 1 year, based on research potential and academic merit.

## grants

### **NSERC SurfNet Special Projects, 2014-2015**

\$25,000 over 12 months. "Providing Interactive Feedback for Multi-Surface Environments".

### **NSERC SurfNet Special Projects, 2013-2014**

\$25,000 over 12 months. "Building Web-Based Multi-Surface Environments".

### **NSERC ENGAGE Grant, 2013**

(with Dr. Frank Maurer) \$25,000 over 6 months. "The Future of Retail".

## awards

### **Best-Paper Honorable Mention, ACM DIS, 2019**

for Mannequette: Understanding and Enabling Collaboration and Creativity on Avant-garde Fashion-Tech Runways (with Anthony Tang).

### **Best-Paper Honorable Mention, ACM CHI, 2018**

for Aarnio: Passive Kinesthetic Force Output for Foreground Interactions on an Interactive Chair (with Shan-Yuan Teng, Da-Yuan Huang, Chi Wang, Jun Gong, Teddy Seyed, Xing-Dong Yang, Bing-Yu Chen).

**Best Talk Award, ACM UIST, 2017**

for A Modular Smartphone for Lending (Xing-Dong and Dan Vogel).

**Best-Paper Honorable Mention, ACM CHI, 2016**

for User Elicitation on Single-hand Microgestures (with Edwin Chan, Wolfgang Stuerzlinger, Xing-Dong and Frank Maurer).

**Best Student Presentation, ACM ITS, 2014**

for Exploring Multi-Surface Interactions in Retail Environments (with Sydney Pratte).

**Best Paper Award, MediCHI Workshop, 2013**

for MRI Table Kinect: A multi-surface application for exploring volumetric medical imagery (with Chris Burns).

**Departmental Teaching Excellence Top 10 Ranking, 2013**

Ranked as a Top 10 Teaching Assistant for the 4th Year Undergraduate Courses for the Human-Computer Interactions II Course (CPSC581).

**Best Student Presentation, GeoConvention, 2012**

for Interpretative Visualization of Fused Hydrocarbon Microseep and Reservoir Data (with Chris Burns).

**Departmental Teaching Excellence Award, 2012**

Awarded best Teaching Assistant for 3rd Year Undergraduate Courses for the Human-Computer Interactions I Course (CPSC481).

## invited talks

### conference presentations

DIS 2019, San Diego, CA, USA, "Mannequette: Understanding and Enabling Collaboration and Creativity on Avant-garde Fashion-Tech Runways"

UIST 2017, Quebec City, Canada, "A Modular Smartphone for Lending"

CHI 2016, San Jose, CA, USA, "Doppio: A Reconfigurable Dual-Face Smartwatch for Tangible Interaction".

ITS 2015, Madeira, Portugal, "SoD-Toolkit: A Toolkit for Interactively Prototyping and Developing Multi-Sensor, Multi-Device Environments".

INTERACT 2015, Bamberg, Germany, "CipherCard: A Token-Based Approach Against Camera-Based Shoulder Surfing Attacks on Common Touchscreen Devices".

OGC 2014, Calgary AB, Canada, "The Geospatial Domain & Multi-Surface Environments".

ITS 2013, St Andrews, Scotland, "SkyHunter: a Multi-Surface Environment for Supporting Oil and Gas Exploration".

IUI 2013, Los Angeles, CA, USA, "From Small Screens to Big Displays: Understanding Interaction in Multi-Display Environments".

ITS 2012, Cambridge, MA, USA, "Eliciting usable gestures for multi-display environments".

### invited speaker

Brooklyn Public Library Central Library, Brooklyn, NY, USA, "Sustainability & Technology in Fashion". October 11, 2018. (panel member)

Microsoft Research, Redmond, WA, USA, "Hacking The Runway: Exploring Fashion Technology & Haute Tech Couture". November 8, 2017.

Smart Technologies, Calgary, AB, Canada, "Examining User Experience in Multi-Display Environments".  
May 13, 2013.

## student mentorship

Edwin Chan, University of Calgary, 2015 - Current

MSc mentorship, "User-defined Single-hand microgestures"

Alaa Azazi, University of Calgary, 2014 - 2016

MSc mentorship, "Low Cost Indoor Localization Within and Across Disjoint Ubiquitous Environments using Bluetooth Low Energy Beacons"

Yuxi Wang, University of Calgary, 2015 - 2016

BSc Honours Project mentorship, "Emergency Response Personnel and Wearables"

LaVerne Woroschuk, University of Calgary, 2016

BSc Honours Project mentorship

Francisco Marinho Rodrigues, University of Calgary, 2014 - 2015

MSc mentorship, "Exploring Collaboration with Geospatial Information in Multi-Display Environments"

Apoorve Chokshi, University of Calgary, 2014 - 2015

MSc mentorship, "Designing Social Media Tools for Emergency Response"

Sydney Pratte, University of Calgary, 2014 - 2015

BSc Honours Project mentorship, "Projected Pixels: Exploring Projection Feedback in Multi-Surface Environments". Student awarded major NSERC research award for MSc, based on merit and research potential

Edwin Chan, University of Calgary, 2014 - 2015

BSc Research Project, "User Elicitation on Single-hand Microgestures" (with Dr. Xing-Dong Yang)

Alaa Azazi, University of Calgary, 2013 - 2014

BSc Honours Project mentorship, "From Room Instrumentation to Device Instrumentation: Assessing an Inertial Measurement Unit for Spatial Awareness". Student awarded major AITF research award for MSc, based on merit and research potential

Daniel Sabourin, University of Calgary, 2013 - 2014

BSc Honours Project mentorship, "From Room Instrumentation to Device Instrumentation: Assessing an Inertial Measurement Unit for Spatial Awareness"

## academic service

### conference reviewer

ACM Conference on Human Factors in Computing Systems (CHI), 2013 - *current*

ACM Conference on User Interface Software and Technology Symposium (UIST), 2015 - *current*

ACM Conference on Designing Interactive Systems (DIS), 2017 - *current*

ACM SIGCHI Symposium on Engineering Interactive Computing Systems (EICS), 2013 - *current*

ACM Conference on Interactive Spaces and Surfaces (ISS), 2012 - *current*

ACM Conference on Intelligent User Interfaces (IUI), 2014 - *current*

ACM Conference on Human Computer Interaction with Mobile Devices and Services (MobileHCI), 2014 - *current*

## journal reviewer

Journal of Systems and Software, 2014 - 2016

## teaching experience

### Teaching Assistant, *September 2016 – December 2016*

University of Calgary, Calgary, AB, Canada

Tutoring and co-teaching for students in Software Entrepreneurship (CPSC499.01). Included topics such as ideation, crowd-funding how-tos, and creating MVPs. I also mentored all teams in the course through a full cycle of a product idea, from ideation to pitch-ready for investors. Ranked as a top Teaching Assistant in the Computer Science Department for this class.

### Teaching Assistant, *March 2016 – April 2016*

University of Calgary, Calgary, AB, Canada

Emergency tutor for students in Human Computer Interaction I (CPSC481). Included teaching user-centered design, sketching, prototyping and interface design to formal evaluation of interfaces using heuristics. Also taught C#, WPF and Expression Blend for students to design interfaces.

### Mitacs Research Intern, *May 2013 - September 2013*

Calgary Scientific Inc., Calgary, AB, Canada

With a second team member, created new interactions for exploring medical data that utilized an iPad, in conjunction with Calgary Scientific Inc's existing suite of medical software, specifically ResolutionMD. This work resulted in 2 publications.

### Graduate Research Assistant, *September 2011 – September 2013*

University of Calgary, Calgary, AB, Canada

Led research collaborations with a variety of industrial partners in domains such as oil and gas, medical, agriculture, emergency response planning and GIS. The research was typically focused on user experience and how to incorporate cutting-edge technologies (e.g. tabletops, multi-surface environments) into practice. I led several research teams consisting of graduate and undergraduate students that resulted in a number of publications.

### Teaching Assistant, *September 2013 – December 2013*

University of Calgary, Calgary, AB, Canada

Tutoring students in Advanced Human Computer Interaction II (CPSC581). Included teaching advanced design, sketching, hardware prototyping techniques using technologies such as the Microsoft Kinect and Phidgets, as well as basic electronic/circuit design. Ranked as a top Teaching Assistant in the Computer Science Department for this class.

### Teaching Assistant, *September 2012 – December 2012*

University of Calgary, Calgary, AB, Canada

Tutoring students in Human Computer Interaction I (CPSC481). Included teaching user-centered design, sketching, prototyping and interface design to formal evaluation of interfaces using heuristics. Also taught C#, WPF and Expression Blend for students to design interfaces. Teaching Excellence award received for this class.

### NSERC Surfnet Research Intern, *May 2010 - September 2011*

NSERC SurfNet Research Network, Canada

Collaborated as a part of a cross-Canadian team of agile developers to assist researchers across the Surfnet Research Group. SurfNet was Canada's largest Research Network and focused in several



areas, particularly multi-touch/tabletop research. My work resulted in 3 publications and significant media coverage across Canada.

## professional experience

### **Post-Doctoral Researcher, *October 2019 – Present***

Microsoft Research, Redmond, WA, United States

I am currently a Post-Doctoral Researcher in the Research in Software Engineering (RiSE) Group in Redmond, WA. I focus on a broad area that includes wearables, fashion-tech, prototyping tools, and multi-display devices and interactions.

### **Wearables Designer and Research Intern, *November 2018 – June 2019***

Microsoft Research, Redmond, WA, United States

I led Project Brookdale and was supervised by Dr. Jonathan Peli de Halleux and Dr. Tom Ball of the MakeCode team, along with Fusionist Asta Roseway. In Brookdale, I designed and implemented software and hardware, built upon the MakeCode environment to enable designers and those with non-technical skills to explore different forms of creative expression (e.g. fashion, art exhibits). This work is culminated in a high-profile fashion-tech show in Brooklyn on May 3rd, 2019, with over 1500 in attendance. The results were submitted to CHI 2020.

### **Founder and Director, *March 2017 – Present***

Stories of Fashion, Inclusion and Empowerment (SOFIE), Calgary, AB, Canada

As a result of the many workshops I have either led or collaborated on, I founded a Not-For-Profit with a multi-cultural group of artists, designers and technologists to increase and promote diversity in technology and other fields by fusing culture, fashion, and technology into different types of culture-infused #STEAM teaching. We recently hosted the worlds first Indigenous pow-wow tech regalia workshop for young Indigenous girls, and it has already had a significant impact for the Mi'kmaq community in Nova Scotia by allowing them to tell their stories and culture in an entirely new medium.

### **Co-Founder, *January 2016 – 2018***

Stitchkit.io, Calgary, AB, Canada

Co-founder of StitchKit, the first fashion technology kit for #STEAM education, that was designed to make creating fashion tech and wearables easier for all ages. It recently reached 300% of its goal on Kickstarter and will appear in stores across the Canada, the United States and Sweden in 2018. I also create curriculum for these kits which are used in #STEAM fashion tech workshops around the world.

### **STEAM Education + Research and Technology Director, *January 2016 – 2018***

MakeFashion, Calgary, AB, Canada

As a technology director for MakeFashion, I manage and guide fashion tech designers and engineers in their design process of haute couture wearable fashion technology pieces that are shown on fashion runways around the world. MakeFashion is the leading wearable technology fashion show in the world. I also host and lead workshops on the basics of fashion tech for all audiences for MakeFashion.

### **Senior Fashion Technologist and Designer, *January 2016 – 2019***

Electric Vibe, Calgary, AB, Canada

As the lead fashion technologist and a junior designer for Electric Vibe, I create pieces that combine elements of nature and technology into the design of evocative haute couture pieces. Electric Vibe recently made its runway debut in April 2017 at the MakeFashion 2017 Gala, and our pieces travel internationally at different events and runway shows.

**Co-Founder, *January 2014 – 2016***

Slate Scale, Calgary, AB, Canada

Co-founder of Slate Scale, a portable smart scale for nutrition. Primary responsibilities include technology and design decisions, as well as assisting in marketing and raising funding. It recently won a health innovation startup competition, ranked as a top 10 startup in Calgary and will be competing in international competitions in 2016.

**Product Manager, *July 2015 – 2017***

VizworX Inc., Calgary, AB, Canada

Responsible for product vision of a geospatial product. Also coordinated meetings between key stakeholders, managing customer relationships, gathered requirements as well as create strategies with the marketing/sales teams.

**Project Manager, *January 2014 – July 2015***

VizworX Inc., Calgary, AB, Canada

Responsible for direction and high level decisions from a technical perspective, for a geospatial product. Managed a small team of developers that implemented a project for 5 major Canadian Oil and Gas partners. Also coordinated meetings between key stakeholders and gathered requirements.

**Senior UI/UX Designer, *January 2014 – 2017***

VizworX Inc., Calgary, AB, Canada

Responsible for designing interfaces, interviewing users, creating prototypes and arranging design sessions for a geospatial product.

**Freelance UI/UX Consultant, *August 2012 – October 2019***

Self, Calgary, AB, Canada

Perform UX, Interface Design consulting for a variety of clients, such as local Wine Shops, and Land Surveying companies.

## volunteering and mentorship

**Undergraduate and Graduate Student Mentor, *September 2012 – Present***

As a mentor for both undergraduate and graduate students, I help guide and mentor in research as well as the technical side of theses. To date, I have helped supervise and mentor over 10 graduate students, with many of them winning prestigious scholarships and becoming successful in industry.

**Volunteer Maker, *December 2016 – October 2019***

As a volunteer maker, I help people of all ages in completing maker projects when assistance is needed. My duties involve teaching basic skills on laser cutting, 3D printing, Arduino programming, electronics soldering, and other maker related skills. I also assist with general #STEAM workshops hosted by different makerspaces in both Canada and China.

**Member of Advisory Committee for Entrepreneurship and Innovation (ACEI),**

*November 2015 – April 2016*

Committee member on deciding the future and implementation of an innovative makerspace for University of Calgary students. Asked to be member due to my experience and strong ties in the startup and makerspace communities in Calgary.

**ProtoSpace Committee Member and Mentor, *January 2014 – July 2015***

Committee Member of Calgary's primary makerspace community. Attended monthly meetings, provided input and was the designated Design/User Experience mentor for makers across the City.

## Undergraduate Student Representative, *September 2009 - January 2011*

Attended monthly meetings with professors from the Department of Computer Science representing students in important departmental issues and voicing their concerns.

## selected press

**CBC**, Radio/Web/Printed Article, "Young Mi'kmaq women learn to light up traditional dress", June 2018

**Forbes Magazine**, Web/Printed Article, "*Three's Company*", February 28, 2018 Edition

**Calgary Herald**, Web/Printed Article, "*Local world leaders in wearable tech get jump on \$34-billion industry*", January 2018

**Daily Planet - Discovery Channel**, News Story, "*A new Canadian startup is taking the intimidating, and making it exhilarating*", December 2017

**Makezine**, Web/Printed Article, "*StitchKit Hopes to Bring Electronic Fashion to Schools*", December 2017

**MIT Technology Review**, Web/Printed Article, "*This 3-in-1 Phone Will Make You Want to Share It with Strangers*", October 2017

**Yahoo News!**, Web/Printed Article, "*University of Calgary keeping bright minds in Canada with innovative culture*", April 2017

**The Metro Calgary**, Web/Printed Article, "*More fashion in Calgary's MakeFashion 2017*", March 2017

**The Verge**, Web Article, "*Smartwatch concept puts two screens on your wrist*", May 2016

**Gizmodo**, Web Article, "*A Multi-Screen Smartwatch Might Actually Be a Brilliant Idea*", May 2016

**Yahoo News!**, Web Article, "*Track every byte: new portable scale measures calorie intake by food weight*", November 2015

**Daily Mail UK Online**, Web Article, "*Goodbye calorie-counting apps! £32 smart scales weigh your food and automatically track what you're eating on your phone*", November 2015

**Canoe.com**, Web Article, "*Slate – World's 1st portable nutritional smart scale*", October 2015

**Global News Calgary**, Web Article, "*Calgarians' tech invention can help you count calories and lose weight*", July 2015

**Global News BC**, Interview on "Global Afternoon", July 2015

**Global News Calgary**, News Story on "News Hour Calgary", December 2012

**CTV News Calgary**, Interview on "CTV News at 6", July 2012

**Global News National**, Interview on "Global News Hour", September 2011

## portfolio

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