

SAMARTH SINGHAL

DESIGNER | RESEARCHER



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SUMMARY

- Expertise is in conducting user experience research, product design, and UX strategy.
- Experienced in applying research, design tools, and different methodologies to create on-screen customer experiences and expertise in UX beyond the screen such as IoT, wearables, and tangibles.
- Contributed over 10 academic publications and 2 journals in the field of Human-Computer Interaction in top-tier international conferences with highly competitive acceptance rates of 25-45%.
- Research work received an immense media attention on Discovery, Fast Company, CBC, CTV, SFU.

EDUCATION

Masters of Science in Human-Computer Interaction (HCI) (2015 - 2017)
Simon Fraser University (SFU), *Canada* CGPA: 4.2/4.33

Bachelor of Technology in Computer Science Engineering (2008 - 2012)
Jaypee Institute of Information Technology, *India* CGPA: 8.4/10

EXPERIENCE (5 years)

SFU: Research Assistant, Emerging Technologies (Sep '15 - now)

- Defining project goals and leading them from ideation to evaluation by designing, developing, and conducting user research using various methodologies (qualitative and quantitative).
- An active collaborator and efficient in working with other researchers and local companies (Samsung, Microsoft Research) to expand my knowledge and skills in other domains.

Curatio: Product Designer, Everyday Computing (Apr '17 - Oct)

- Ideated and prototyped solutions to help increase users participation, curiosity, and engagement with Curatio platform of connecting patients over distance.
- Designed and developed a tangible everyday artifact for users (patient-centric) to interact and live with the content generated by the Curatio platform in an everyday fashion in their homes.

Samsung: UX Developer, Wearables (May '16 - Aug '16)

- Developed a smartwatch application to enhance the workplace collaboration and awareness among flight attendants with real-time location updates using BLE beacons.

Infosys, India: Senior Systems Engineer, Financial CRM (Jun '14 - Jul '15)

- Developed and enhanced the CRM application for an Australian financial service provider using agile methodologies working as a technical analyst from off-shore.
- Contributed the highest value-adds of \$220K/yr for financial year 14-15 by automating and optimizing daily batch jobs by reducing the manual tasks of tellers.

Infosys, India: Systems Engineer, Mobile Apps (Jul '12 - Jun '14)

- Rapid mobile application developer for the banking sector developing proof of concepts to validate the technical feasibility and access the scope of functional requirements.

PROJECT EXPERIENCE (www.samarthsinghal.com for portfolio)

Flex-N-Feel (Thesis): UX Designer & Researcher

Fabricated and engineered a pair of gloves to transfer touch over distance for distance-separated couples using vibrotactile sensations transmitted wirelessly. Further conducted an exploratory user study (mixed methods) with couples to explore the design space and its possibilities.

Time-Turner: UX Researcher

A field study evaluating the design of a tangible domestic artifact in the home representing families past moments in the form of always-on video recordings. The research goal was to investigate how family members would reflect on their past lives and sift through traces of time to discover their unseen past in an everyday fashion.

HONORS

- **Clark Wilson Scholarship**, (\$1400) Spring 2017
- **SIAT Travel Award** (\$2000 CAD), Spring 2016, 2017
- **Graduate Fellowship** (\$6500 CAD), Spring 2017
- **Entrance Scholarship** (\$6500 CAD), Fall 2015
- **Infosys GEM of Growth Market Units** Q1 2015
- **Westpac Spark Recognition Award** Westpac Group, December 2014
- **1st Prize for Augmented Chemistry** ACM Delhi-NCR, February 2012

SKILLS

Research and Design

Qualitative Research Methods
Quantitative Analysis
User-Centered Design
Contextual Inquiry
Interviewing (Remote)
Focus Groups
Heuristic Evaluation
Usability Testing
A/B Testing
Affinity Diagramming
Experience Mapping
Personas
Wireframing

Programming

Java
C/C++
Node.js, JavaScript
HTML5/CSS
Processing
Arduino, ESP
MySQL, Oracle
PeopleSoft
Android, Tizen
WebRTC, OpenCV

Design and Prototyping

Axure, Sketch
High & Low Fidelity Prototyping
Laser Cutting, Woodwork
Electronics, Soldering
Hacking/Tinkering Stuff

PROJECT EXPERIENCE *(continued)*

Telepresence Beams: UX Researcher

Conducted a generative and exploratory study to understand the use of telepresence robots to attend conferences remotely (CSCW 2016) in collaboration with Microsoft Research. Responsible for interviewing local and remote participants and analyzing data with multiple team members.

Distributed Escape Rooms: UX Designer & Researcher

Designed a distributed escape room that connects two distance-separated rooms with video and audio connections including a range of interconnected puzzles. Evaluated the design factors and provided design implications that affected fun and enjoyment, feeling of team cohesion, and providing a sense of connection and immersion for distributed escape rooms.

Immersive Video Communication: UX Designer

Designed and developed an immersive video communication mobile application that allows the remote users to view the entire 360-degree view providing a better understanding of the spatial context along with a stronger sense of presence and awareness.

PUBLICATIONS

Since 2012 I have published 2 journal articles, 6 peer-reviewed conference papers and several demonstrations of my research work. I have a total citation count of 45 in 5 years and a growing h-index of 2 using Google Scholar.

Journal Articles

- **Samarth Singhal**, Sameer Bagga, Praroop Goyal, and Vikas Saxena (2012) **Augmented Chemistry: Interactive Education System**, *International Journal of Computer Applications* 49, 15 (July 2012).
- Stephanie Wong, **Samarth Singhal**, and Carman Neustaedter (2017) **The Study and Design of Collaboration Tools for Flight Attendants**, *International Journal of Mobile Human Computer Interaction*.

Reviewed Conference Papers

- **Samarth Singhal**, Carman Neustaedter, Yee Loong Ooi, Alissa Antle, Brendan Matkin (2017) **Flex-N-Feel: The Design and Evaluation of Emotive Gloves for Couples to Support Touch Over Distances**, *Proceedings of the Conference on Computer Supported Cooperative Work and Social Computing*.
- Rui Pan, **Samarth Singhal**, Bernhard Riecke, Emily Cramer, Carman Neustaedter (2017) **MyEyes: The Design and Evaluation of First Person View Sharing Goggle for Long Distance Couples**, *Proceedings of the Conference on Designing Interactive Systems*.
- Hanieh Shakeri, **Samarth Singhal**, Rui Pan, Carman Neustaedter, and Anthony Tang (2017) **Escaping Together: The Design and Evaluation of a Distributed Real-Life Escape Room**, *Proceedings of the ACM Symposium on Computer-Human Interaction in Play*

Reviewed Extended Abstract & Posters

- **Samarth Singhal**, William Odom, Lyn Bartram, Carman Neustaedter (2017) **Time-Turner: Data Engagement Through Everyday Objects in the Home**, *Proceedings of the Conference on Designing Interactive Systems*.
- **Samarth Singhal**, Carman Neustaedter (2017) **BeWithMe: An Immersive Telepresence System for Distance Separated Couples**, *Proceedings of the Conference on Computer Supported Cooperative Work and Social Computing*.
- **Samarth Singhal**, Carman Neustaedter, Thecla Schiphorst, Anthony Tang, Abhisekh Patra, Rui Pan (2016) **You are Being Watched: Bystanders' Perspective on the Use of Camera Devices in Public Spaces**, *Proceedings of the ACM Conference on Computer Human Interaction*.

Demonstrations

- **Samarth Singhal**, Carman Neustaedter, Alissa N. Antle, Brendan Matkin (2017) **Flex-N-Feel: Emotive Gloves for Physical Touch Over Distance**, *Proceedings of the Conference on Computer Supported Cooperative Work and Social Computing*.
- Stephanie Wong, **Samarth Singhal**, Carman Neustaedter (2017) **Smart Crew: A Smart Watch Design for Collaboration Amongst Flight Attendants**, *Proceedings of the Conference on Computer Supported Cooperative Work and Social Computing*.

TEACHING

Design Evaluation
IAT432, Spring 2017

Design Evaluation
IAT 432, Spring 2016

Web Design and Development
IAT 339, Fall 2015

Multimedia Development Lab
Fall 2011

COURSEWORK

Human-Computer Interaction

Tangible Computing
Qualitative Research Methods
Quantitative Research Methods
Cognition, Learning, & Collaboration
Visualization & Communication

Computer Science

Database Systems
Operating Systems
Computer Graphics
Engineering Statistics
Multimedia Computing
Data Structures & Algorithms
Mobile Application Engineering

SERVICES

Paper Reviewer
CHI 2016, CHI 2017

Student Volunteer
CSCW 2016, CSCW 2017

Formula 1 Marshall
Indian GrandPrix 2011