

# FIRAZ PEER

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## EDUCATION

- 2020 **PhD Digital Media**, Georgia Institute of Technology, Atlanta, GA  
Graduate Certificate in Science and Technology Studies  
Dissertation: All Data Are Human. The Human Infrastructure of Civic Data  
Advisor: Carl DiSalvo  
Committee: Chris LeDantec, Nassim Parvin, Paul Mihailidis, Yanni Loukissas
- 2011 **MS Human Computer Interaction**, Georgia Institute of Technology  
Thesis: Using Technology to Make Exertion Games for Children More Engaging  
Advisors: Ali Mazalek and Florian 'Floyd' Mueller
- 2005 **B.Eng. Computer Science & Engineering**, Bangalore Institute of Technology, Bangalore, India

## EMPLOYMENT

- 2011 – 2013 **User Experience Designer**, Centers for Disease Control and Prevention, Atlanta, GA  
Conducted in-person and remote usability studies to develop interaction prototypes and interface specifications for CDC's mobile and web applications.
- 2005 – 2008 **Software Developer**, Wipro Technologies, Bangalore, India  
Developed front end and back end web applications for Shell using the Microsoft .NET framework.

## PEER REVIEWED CONFERENCE PROCEEDINGS

Peer-reviewed conferences are top-tier publication venues in the field of Human Computer Interaction. They are highly selective, extensively reviewed, and intended for archival papers only. When available, the acceptance rate is included.

- Conference Papers C14 **Firaz Peer** and Carl DiSalvo. "Care-ful Speculation on the Unintended Consequences of Data Literacy Workshops". *UNDER REVIEW AT ACM Conference on Human Computer Interaction (CHI 2021)*.
- C13 **Firaz Peer** and Carl DiSalvo. "Why Designing for Social Good isn't Good Enough: Results from an Ethnography of a Community Indicator Data Dashboard". *UNDER REVIEW AT ACM Conference on Computer Supported Cooperative Work and Social Computing (CSCW 2020)*.
- C12 **Firaz Peer** and Carl DiSalvo. "Workshops as Boundary Objects for Data Infrastructure Literacy and Design". *In Proceedings of the 2019 Designing Interactive Systems Conference*, pp 1363-1375. ACM DIS 2019, (25% Acceptance Rate)

- C11 Jatin Arora and **Firaz Peer**. "Exploring Place-based, Physical Social Networks: A Case-study of Starbucks in a University Campus". *Companion Publication of the 2019 Designing Interactive Systems Conference*, pp 117–121. ACM DIS 2019.
- C10 Katie O'Connell, Yeji Lee, **Firaz Peer**, Shawn M. Staudaher, Alex Godwin, Mackenzie Madden, and Ellen Zegura. "Making Public Safety Data Accessible in the Westside Atlanta Data Dashboard." *In Proceedings of Bloomberg Data for Good Exchange Conference*, New York, NY, USA. D4GX 2016.
- C9 **Firaz Peer**, Michael Nitsche, and Lauren Schaffer. "Power puppet: science and technology education through puppet building." *In Proceedings of the 2014 conference on Interaction Design and Children*, pp. 221–224. ACM IDC 2014.
- C8 Ali Mazalek, Michael Nitsche, Claudia Rébola, Paul Clifton, Andy Wu, Nick Poirier, **Firaz Peer**. "Pictures at an Exhibition: Design of a Hybrid Puppetry Performance Piece", *In Proceedings of the International Conference on Entertainment Computing*, pp 130–143, Berlin, Heidelberg, ICEC 2012.
- C7 **Firaz Peer**, Ali Mazalek, Florian 'Floyd' Mueller and Anne Friedlander. "Evaluating technology that makes physical games for children more engaging." *In Proceedings of the 10th International Conference on Interaction Design and Children*, pp. 193–196. ACM IDC 2011. (Master's Thesis)
- C6 Ali Mazalek, Michael Nitsche, Claudia Rébola, Andy Wu, Paul Clifton, **Firaz Peer**, and Matthew Drake. "Pictures at an exhibition: a physical/digital puppetry performance piece." *In Proceedings of the 8th ACM conference on Creativity and Cognition*, pp. 441–442. ACM CC 2011.
- C5 Ali Mazalek, Sanjay Chandrasekharan, Michael Nitsche, Tim Welsh, Paul Clifton, Andrew Quitmeyer, **Firaz Peer**, Friedrich Kirschner, and Dilip Athreya. "I'm in the game: Embodied puppet interface improves avatar control." *In Proceedings of the fifth international conference on Tangible, Embedded, and Embodied Interaction*, pp. 129–136. ACM TEI 2011.
- C4 Ali Mazalek Michael Nitsche, Sanjay Chandrasekharan, Tim Welsh, Paul Clifton, Andrew Quitmeyer, **Firaz Peer**, and Friedrich Kirschner. "Recognizing self in puppet controlled virtual avatars." *In Proceedings of the 3rd International Conference on Fun and Games*, pp. 66–73. ACM FnG 2010.
- Workshop Papers C3 Michael Nitsche, Crystal Eng, **Firaz Peer**. "Ownership in Making Puppets." *At the First Co-Creation Workshop at International Conference on Computational Creativity*, Atlanta, GA, ACC ICC 2017.
- C2 Florian 'Floyd' Mueller, **Firaz Peer**, Stefan Agamanolis, and Jennifer Sheridan. "Gamification and exertion." *In Proceedings of the Workshop on Gamification at the Conference on Human Factors in Computing Systems*, pp. 1–4. ACM CHI 2011.
- C1 **Firaz Peer**, Ali Mazalek, Florian 'Floyd' Mueller, and Anne Friedlander. "How to facilitate physical skill development in exertion games." *In Proceedings of the Workshop on Embodied Interaction at the Conference on Human Factors in Computing Systems*, pp. 1–4. ACM CHI 2011.

Posters P1 **Firaz Peer**, “Data Dashboards as Infrastructures for Data Literacy” *At the iConference*, Washington D.C, USA 2019.

### JOURNAL ARTICLES

Journal Articles J2 Ali Mazalek, Michael Nitsche, Sanjay Chandrasekharan, Tim Welsh, Paul Clifton, Andrew Quitmeyer, **Firaz Peer**, and Friedrich Kirschner. "Recognising yourself in virtual avatars." *International Journal of Arts and Technology*, 6, no. 1, pp 83-105, IJART 2012.

J1 Timothy Welsh, Sanjay Chandrasekharan, Ali Mazalek, Michael Nitsche, Paul Clifton, Andrew Quitmeyer, **Firaz Peer**, and Friedrich Kirschner. 2010. “Me, Myself, and Virtual I: Using Ideomotor Principles to Design a Human-Computer Interface.” *Journal of Exercise, Movement, and Sport*, 42 (1): 61 2010.

### REFEREED CONFERENCE AND SYMPOSIA PARTICIPATION

Workshops **Data4Good: Designing for Diversity & Development**

2020 Invited to participate as a discussant in this online workshop at the International Conference on Advanced Visual Interfaces (AVI 2020). The workshop focused on conversations about how data-driven approaches can benefit from integration of a more human-centered orientation before being used to inform the design, deployment, and evaluation of technologies in various less-served contexts.

2019 **CoDesigning AI Futures: Integrating AI Ethics, Social Computing, and Design**

A workshop at the ACM DIS (Design of Interactive Systems) Conference that aimed at identifying case studies, challenges and opportunities for collaboration at the intersections between AI Ethics, social computing, and design.

**Data & Society’s Data-driven Technologies in Organizational Context Workshop**

Invited to participate as a discussant on the evolving and societally important issues surrounding data-driven technologies.

Presentations **Firaz Peer**, and DiSalvo, Carl., “Reimagining Data Infrastructures through Infrastructural Inversion and Participatory Design,” Paper presented at the *Annual Meeting of the Society for the Social Studies of Science, (4S)* New Orleans, LA, 2019.

Workshops Organized Ari Happonen, **Firaz Peer**, Maria Palacin-Silva, Annika Wolff. “Workshopping a Data Equity Manifesto.” *At the iConference*, Washington D.C, USA, 2019.

Doctoral Colloquia ACM CSCW (Computer Supported Cooperative Work and Social Computing), Austin, TX, USA, 2019.  
ACM DIS (Design of Interactive Systems), San Diego, CA, USA, 2019.  
iConference, Washington D.C, USA 2019.  
ACM FAT\* (Fairness Accountability and Transparency) Conference, Atlanta, GA, USA 2019.

Paper-a-thon Ahmed Elnoshokaty, Yi Wang, Shuyuan Deng, Tom Meservy, Mohamed Elsaied, **Firaz Peer**, Omar El-Gayar. “Recommender Systems in Online Platforms for Social Campaigns.” In *Proceedings of the 39th International Conference on Information Systems*, San Francisco, USA, ICIS 2018.

## **CERTIFICATES, AWARDS AND GRANTS**

- 2020 **Associate Level Certificate**, Center for the Integration of Research, Teaching, and Learning (CIRTL)
- 2020 **Tech to Teaching Certificate**, Center for Teaching and Learning, Georgia Institute of Technology  
Completed two graduate-level courses in pedagogy and course design, along with a capstone teaching experience that were designed to prepare graduate students for a career in academia.
- 2018-19 \$1,600 – Ivan Allen College Travel Grant
- 2018 \$6,000 – Campus Life and Community at Tech Scholarship. Awarded for positively impacting the Georgia Tech Community through leadership, scholarship and service.
- 2017 \$1,000 – Dean’s Million Dollar Travel Award
- 2016 \$2,000 – Intel Science and Technology Center Travel Award  
\$350 – Anne Robinson Clough International Student Award
- 2014 \$2,000 – Intel Science and Technology Center Travel Award  
\$2,000 – Georgia Tech FIRE Travel Award

## **TEACHING EXPERIENCE**

- Fall 2020 - Spring 2021 **Introduction to Databases (online)**, University of Kentucky  
Taught a group of 30 undergraduate students this online course on the basics of server-side web development with PHP and MySQL. Course was intended to give students a solid background in databases, with a focus on relational database management systems. Topics include data modeling, database design theory, data definition and manipulation languages, storage and indexing techniques, query processing and optimization, and database programming interfaces.
- Summer 2020 **Teaching Assistant, Computing and Society (online)**, Georgia Institute of Technology  
Graded online discussions and assignments for 50 undergraduate students in this online course which focused on teaching students several philosophical approaches to ethics. This included utilitarianism, Kantianism, social contract theory, and virtue ethics. The goal of the course was to enable students to be able to address ethical dilemmas with reasoned arguments, grounded in a combination of these ethical theories.
- Spring 2020 **Instructor, Introduction to Computational Media**, Georgia Institute of Technology  
Taught a group of 20 undergraduate students introductory topics in computational media theory and design. The course served as an introduction to the different threads in computational media like people, interaction, computing and intelligence, media studies, games, music and design studies.
- Fall 2014 – Spring 2018 **Instructor, Principles of Visual Design**, Georgia Institute of Technology  
Taught topics like typography, layout, photography, poster design and brand identity. Modified course over eight semesters to suit the Serve-Learn-Sustain model of community engagement so local non-profit organizations could benefit from the students’ design work. Approximately 20 students over 8 semesters.

- Fall 2017 **Co-Instructor** with Lacy Hodges, GT 1000, Georgia Institute of Technology  
Taught a group of 15 freshmen the basics of leadership by adapting material from Georgia Tech’s leadership institute. Worked with the instructor to modify syllabus and activities to meet the needs of the students.
- Spring 2014 **Teaching Assistant** with Nassim Parvin  
Taught a group of 12 students the basics of Adobe Creative Suite, D3 and Mapbox while guiding them on information design and visualization projects.
- 2010-11 **Teaching Assistant** with Ali Mazalek  
Assisted 15 students through the design and implementation of a physical/digital puppetry performance piece that used Arduinos and sensors.

### FELLOWSHIPS AND SUMMER SCHOOLS

- Summer 2019 **The Consortium for the Science of Sociotechnical Systems (CSST) Summer Research Institute**  
Participated in the ACM SIGCHI sponsored summer research institute at Rutgers University, which brought together researchers who study the design and development of sociotechnical systems.
- 2019-2020 **Graduate Teaching Fellow, Georgia Tech Center for Teaching and Learning**  
Conducted orientations, workshops, classroom observations and individual consultations with TA’s, graduate student instructors and postdocs.
- 2018-2019 **Grand Challenges Fellow, Georgia Tech Leadership Fellows Program**  
Lead groups of undergraduate students through a two-semester program that required them to discover grand challenges in society and invent real world business solutions to combat them.
- 2017-2019 **Leadership Fellow, Georgia Tech Leadership Fellows Program**  
Coached undergraduate students to actively explore and improve their individual and team leadership skills through practice and critical reflection, challenge themselves to be a better leader and develop their leadership vision.
- Summer 2016 **Fellow, Data Science for Social Good, Atlanta, GA**  
Used Tableau and HTML/CSS/JavaScript to design and develop the Public Safety module of the Westside Communities Alliance Data Dashboard, which made data from law enforcement agencies publicly available to community members.
- Summer 2014 **Fellow at the 5<sup>th</sup> International UBI Summer School on “Designing Urban Interactions for Participatory Publics” by Martin Brynskov, University of Oulu, Oulu, Finland**  
Urban interaction design concept for a new physical ‘audio production space’ for each of Medellin’s public libraries was recognized with an award at the summer school.

### RESEARCH ASSISTANTSHIPS

- 2018-2020 **Graduate Research Assistant** with Jacqueline Royster  
Supporting research, development and maintenance of the Communities Who Know Data Dashboard.

- Summer 2015 **Graduate Research Assistant** with Yanni Loukissas  
Performed qualitative research that examined how housing data within Atlanta is produced, used and valued by various stakeholders.
- 2010-11 **Graduate Research Assistant** with Ali Mazalek  
Designed tangible and wearable interfaces and studies their impact on learning and creativity.
- Summer 2010 **Research Fellow** with Florian ‘Floyd’ Mueller, Stanford University, CA  
Designed, prototyped and tested exertion interfaces for children as part of master’s thesis research.

### INVITED PRESENTATIONS

- 2020 "All Data Are Human: Doing Justice to Civic Data by Engaging with their Human Infrastructure", *Department of Computer Graphics Technology, Purdue University*.  
"All Data Are Human: Doing Justice to Civic Data by Engaging with their Human Infrastructure", *School of Information Science, University of Kentucky*.
- Georgia Tech "Making Public Safety Data Accessible in the Westside Atlanta Data Dashboard", *Civic Data Science Internship Program, Summer 2018, 2019*  
"Whose Context is it anyway? How Zillow’s algorithmic system conflicts with other operational contexts in the housing market.", *IAC Graduate Student Conference, Spring 2018*  
Data Science for Social Good Internship Program Presentation, *MS Analytics Speaker Series, Spring 2017*  
"Opportunities for Design in Community Data Dashboards", *IAC Graduate Student Conference, Spring 2017*  
"Zillow Fever—Data Aggregates and the Crisis of Context in the Housing Market", *IAC Graduate Student Conference, Spring 2016*

### ACADEMIC SERVICE

- Student Volunteer ACM Conference on Fairness, Accountability, and Transparency (ACM FAT\*), 2019  
Design Research Organization of America, 2016  
Conference on Human Computer Interaction (CHI), 2010
- Reviewer ACM Conference on Human Factors in Computing Systems (CHI), 2020  
ACM Conference on Designing Interactive Systems (DIS), 2018, 2020  
ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW), 2019  
ACM Tangible Embedded and Embodied Interaction (TEI), 2019, 2020  
ACM CHI Play, 2018  
IEEE Teaching, Assessment and Learning for Engineering (TALE), 2019, 2020  
Participatory Design Conference (PDC), 2018

## **SKILLS**

- Research** Qualitative Research Methods (ethnography, interviews, participant observation, workshops, focus groups, design research, participatory action research)
- Software** Adobe Creative Suite, Tableau, Axure, Balsamiq, UserZoom, Adobe SiteCatalyst
- 2018-Present** HTML5, CSS3, JavaScript, Processing, D3.
- Hardware** Arduino Microcontrollers, Ambient Sensors, Laser Cutter, 3D Printer