

MELISSA BICA

University of Colorado Boulder, Ph.D. Candidate in Computer Science
melissa.bica@colorado.edu | www.melissabica.com

EDUCATION

- Ph.D., Computer Science, University of Colorado Boulder** expected 2019
Advisor: Leysia Palen
NSF Graduate Research Fellow
Research interests: human-centered computing, social computing, crisis informatics
- M.S., Computer Science, University of Colorado Boulder** 2017
- B.S., Computer Science and Engineering, Santa Clara University** 2014
Graduated *cum laude*
- Study abroad, School of Informatics, University of Edinburgh, Scotland Fall 2012

PUBLICATIONS

- Melissa Bica**, Julie L. Demuth, James E. Dykes, and Leysia Palen. (In press). **Communicating Hurricane Risks: Multi-Method Examination of Risk Imagery Diffusion**. To appear in *Proceedings of the CHI Conference on Human Factors in Computing Systems* (CHI 2019).
- Frank Bentley, Katie Quehl, Jordan Wirfs-Brock, and **Melissa Bica**. (In press). **Understanding Online News Behaviors**. To appear in *Proceedings of the CHI Conference on Human Factors in Computing Systems* (CHI 2019).
- Julie L. Demuth, Rebecca E. Morss, Leysia Palen, Kenneth M. Anderson, Jennings Anderson, Marina Kogan, Kevin Stowe, **Melissa Bica**, Heather Lazrus, Olga Wilhelmi, and Jen Henderson. 2018. **"Sometimes da #beachlife ain't always da wave": Understanding People's Evolving Hurricane Risk Communication, Risk Assessments, and Responses Using Twitter Narratives**. *Weather, Climate, and Society* 10, 3: 537–560.
- Rebecca E. Morss, Julie L. Demuth, Heather Lazrus, Leysia Palen, C. Michael Barton, Christopher A. Davis, Chris Snyder, Olga V. Wilhelmi, Kenneth M. Anderson, David A. Ahijevych, Jennings Anderson, **Melissa Bica**, Kathryn R. Fossell, Jennifer Henderson, Marina Kogan, Kevin Stowe, and Joshua Watts. 2017. **Hazardous weather prediction and communication in the modern information environment**. *Bulletin of the American Meteorological Society* 98, 12: 2653–2674.
- Melissa Bica**, Leysia Palen, and Chris Bopp. (2017). **Visual Representations of Disaster**. *Proceedings of the 20th ACM Conference on Computer Supported Cooperative Work and Social Computing* (CSCW '17).
- Jennings Anderson, Marina Kogan, **Melissa Bica**, Leysia Palen, Kenneth M. Anderson, Kevin Stowe, Rebecca Morss, Julie Demuth, Heather Lazrus, Olga Wilhelmi, and Jen Henderson. (2016). **Far Far Away in Far Rockaway: Responses to Risks and Impacts during Hurricane Sandy through First-Person Social Media Narratives**. *Proceedings of the 13th International Conference on Information Systems for Crisis Response and Management* (ISCRAM '16).
- Kyoung-Sook Kim, **Melissa Bica**, Isao Kojima, and Hirotaka Ogawa. (2015). **RendezView: Look at Meanings of an Encounter Region over Local Social Flocks**. *Proceedings of the 6th ACM SIGSPATIAL International Workshop on GeoStreaming*.

POSTERS & WORKSHOP PAPERS

- Melissa Bica.** (2018). **Sensemaking Around Visual Hurricane Risk Messaging.** Workshop on Sensemaking in a Senseless World at the ACM Conference on Human Factors in Computing Systems (CHI '18). [Workshop Paper]
- Melissa Bica.** (2017). Visual Representations of Disaster: Analysis of Disaster-Related Online Imagery. CRA-W Grad Cohort Workshop. [Poster]
- Melissa Bica** and Jennings Anderson. (2016). **"You Are What You Tweet!" The Ethics of (Re) Publishing Public Data as Crafted Narratives.** Workshop on Ethical Encounters in HCI Research at the ACM Conference on Human Factors in Computing Systems (CHI '16). [Workshop Paper]
- Melissa Bica** and Kyoung-Sook Kim. (2015). **RendezView: An Interactive Visual Mining Tool for Discerning Flock Relationships in Social Media Data.** International Conference for High Performance Computing, Networking, Storage and Analysis (SC '15). [Poster]

CONFERENCE PRESENTATIONS

Presenter and panelist, "The Other Uncertainty: Social, Political, and Cultural Forms of Uncertainty in Weather Contexts." American Meteorological Society 99th Annual Meeting. Phoenix, AZ. January 7, 2019.

PRESS COVERAGE

- "Twitter could be confusing people who need crucial hurricane information." Ashley Michels. KDVR FOX31 Denver. September 11, 2018. <https://kdvr.com/2018/09/11/twitter-could-be-confusing-people-who-need-crucial-hurricane-information/>
- "Graduate Makes Waves in Data Mining." Jenni Sigl. The Santa Clara. January 7, 2016. <http://thesantaclara.org/graduate-makes-waves-in-data-mining/>
- "Mining social media to manage crises." Sam Stalion. Science Node. December 2, 2015. <https://sciencenode.org/feature/mining-social-media-to-manage-crises.php>

PROFESSIONAL & RESEARCH EXPERIENCE

Oath Inc. , Sunnyvale, CA, USA User Experience Research Intern, Yahoo! Mail	Summer 2018
Microsoft Research , Redmond, WA, USA Research Intern, Business AI Design & Ethics group	Summer 2017
National Institute of Advanced Industrial Science and Technology , Tsukuba, Japan OSDC Partnership for International Research and Education Fellow	Summer 2015
Santa Clara University Center for Science, Technology, & Society and Anudip Foundation , Kolkata, India Global Social Benefit Fellow	Feb.–Dec. 2013
Qualcomm Incorporated , San Diego, CA, USA Interim Engineering Intern	Summer 2012

TEACHING EXPERIENCE

University of Colorado Boulder

Guest Lecturer for CSCI 4830: HCC Big Data Computing
Teaching Assistant for CSCI 1300: Introduction to Programming

Oct. 2015
Aug. 2014–May 2015

Santa Clara University

Guest Lecturer for COEN 100: Undergraduate Research Seminar

May 23, 2018

SKILLS

Programming Languages & Tools: Python, MongoDB, Jupyter Notebook, HTML/CSS/JS, R, MATLAB, Tableau, QGIS

Methods: quantitative/qualitative data analysis, visual content analysis, surveys, interviews, ethnographic observation, think-alouds, cognitive walkthroughs, personas/user stories, in-lab studies

AWARDS

National Science Foundation Graduate Research Fellowship	June 2016
Open Science Data Cloud Partnerships for International Research and Education (PIRE) Fellowship	Apr. 2015
Graduate Student Research Community Development Award	Oct. 2014
Dean's Fellowship (CU Boulder)	AY 2014–2015
Dean's List (Santa Clara University)	AY 2013–2014
Senior Design Presentation Session Award (Santa Clara University)	May 2014
IEEE Women in Engineering International Leadership Conference Scholarship	Apr. 2014
Upsilon Pi Epsilon Computing and Information Honor Society	Apr. 2014
Willem P. Roelandts and Maria Constantino-Roelandts Grant	Nov. 2013
Tau Beta Pi Engineering Honor Society	Oct. 2013
Grace Hopper Celebration of Women in Computing Scholarship	July 2013
Global Social Benefit Fellowship	Feb. 2013
Cisco-SCU Engineering Fellowship	May 2012
Richard Tapia Celebration of Diversity in Computing Scholarship	Apr. 2011

SERVICE

Reviewing

ACM Conference on Human Factors in Computing Systems (CHI)
ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW)
International Journal of Disaster Risk Reduction
ACM Transactions on Information Systems
Information Systems for Crisis Response and Management
Weather, Climate and Society

Student Volunteering

CHI 2016–2018

International Conference for High Performance Computing, Networking, Storage, and Analysis (SC15)

Mentoring

Mentored 8 undergraduate researchers for the Discovery Learning Apprenticeship (Spring 2016)

PROFESSIONAL MEMBERSHIP

ACM, ACM-W, ACM Special Interest Group Computer-Human Interaction (SIGCHI), Colorado Virtual Operations Support Team (COVOST)