Jessica Schroeder
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Research Interests

My research focuses on supporting people and health providers in expressing and pursuing their multiple, distinct, and evolving goals for personalized management of chronic health conditions. I am particularly interested in designing, developing, and evaluating novel methods and tools to help people and providers collect, analyze, and collaboratively interpret personal informatics data to better understand and manage their condition.

Education

University of Washington (9/2014—Present)   **Seattle, WA**
PhD Student in Computer Science & Engineering
Advisors: James Fogarty and Sean Munson
M.S. in Computer Science & Engineering earned December 2016
Current GPA of 3.9

Pomona College (8/2010—5/2014)   **Claremont, CA**
Computer Science Major with Neuroscience Experience
GPA of 3.88

University of Edinburgh (8/2012—12/2012)   **Edinburgh, Scotland**
GPA of 3.88

Publications

Jessica Schroeder, Ravi Karkar, James Fogarty, Julie A. Kientz, Sean A. Munson, Matthew Kay. (2018). A Patient-Centered Proposal for Bayesian Analysis of Self-Experiments for Health. *Journal of Healthcare Informatics Research*. http://doi.org/10.1007/s41666-018-0033-x

Jessica Schroeder, Chia-Fang Chung, Daniel A. Epstein, Ravi Karkar, Adele Parsons, Natalia Murinova, James Fogarty, Sean A. Munson. (2018). Examining Self-Tracking by People with Migraine: Goals, Needs, and Opportunities in a Chronic Health Condition. *Proceedings of the ACM Conference on Designing Interactive Systems (DIS 2018)*. https://doi.org/10.1145/3196709.3196738

Jessica Schroeder, Chelsey Wilks, Kael Rowan, Arturo Toledo, Ann Paradiso, Mary Czerwinski, Gloria Mark, Marsha M. Linehan. (2018). Pocket Skills: A Conversational Mobile Web App To Support Dialectical Behavioral Therapy. *Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI 2018)*. https://doi.org/10.1145/3173574.3173972

Ravi Karkar, **Jessica Schroeder**, Daniel Epstein, Laura Pina, Jeffrey Scofield, James Fogarty, Julie Kientz, Sean Munson, Roger Vilardaga, Jasmine Zia. (2017). TummyTrials: A Feasibility Study of Using Self-Experimentation to Detect Individualized Food Triggers. *Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI 2017)*. https://doi.org/10.1145/3025453.3025480

Chia-Fang Chung, Elena Agapie, **Jessica Schroeder**, Sonali Mishra, James Fogarty, Sean Munson. (2017). When Personal Tracking Becomes Social: Examining the Use of Instagram for Healthy Eating. *Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI 2017)*. https://doi.org/10.1145/3025453.3025747

Daniel Epstein, Nicole Lee, Jennifer Kang, Elena Agapie, **Jessica Schroeder**, Laura Pina, James Fogarty, Julie Kientz, Sean Munson. (2017). Examining Menstrual Tracking to Inform the Design of Personal Informatics Tools. *Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI 2017)*. https://doi.org/10.1145/3025453.3025635

Jessica Schroeder, Jane Hoffswell, Chia-Fang Chung, James Fogarty, Sean Munson, Jasmine Zia. (2017). Supporting Patient-Provider Collaboration to Identify Individual Triggers using Food and Symptom Journals. *Proceedings of the ACM Conference on Computer Supported Cooperative Work (CSCW 2017)*. http://doi.acm.org/10.1145/2998181.2998276

Jasmine Zia, Chia-Fang Chung, **Jessica Schroeder**, Sean Munson, Julie Kientz, James Fogarty, Elizabeth Bales, Jeanette Schenk, Margaret Heitkemper. (2016). The Feasibility, Usability, and Perceived Clinical Utility of Traditional Paper Food and Symptom Journals for Patients with Irritable Bowel Syndrome. *Neurogastroenterology and Motility*. http://doi.org/10.1111/nmo.12935

Jasmine Zia, **Jessica Schroeder**, Sean Munson, James Fogarty, Linda Nguyen, Pamela Barney, Margaret Heitkemper, Uri Ladabaum. (2016). Feasibility and Usability Pilot Study of a Novel Irritable Bowel Syndrome Food and Gastrointestinal Symptom Journal Smartphone App. *Clinical and Translational Gastroenterology*. http://doi.org/10.1038/ctg.2016.9

Jamie L. Crawford, Cheng Guo, **Jessica Schroeder**, Rosa I. Arriaga, Jennifer Mankoff. (2014). Is it a Question of Trust?: How Search Preferences Influence Forum Use. *PervasiveHealth 2014*. 118-125. http://dx.doi.org/10.4108/icst.pervasivehealth.2014.254988

Federica Sarti, Zhenjie Zhang, **Jessica Schroeder**, Lu Chen. (2013). Rapid Suppression of Inhibitory Synaptic Transmission by Retinoic Acid. *Journal of Neuroscience*, 33(28): 11440-11450. http://doi.org/10.1523/JNEUROSCI.1710-13.2013

Federica Sarti, **Jessica Schroeder**, Jason Aoto, Lu Chen. (2012). Conditional RARa Knockout Mice Reveal Acute Requirement for Retionic Acid and RARa in Homeostatic Plasticity. *Frontiers in Molecular Neuroscience*, 5(16). http://doi.org/10.3389/fnmol.2012.00016

Awards/Honors

Best Paper Honorable Mention, ACM Conference on Designing Interactive Systems (2018)
Best Paper Award, ACM Conference on Human Factors in Computing Systems (2017)
Best Paper Honorable Mention, ACM Conference on Human Factors in Computing Systems (2017)
NSF GRFP Awardee (2016)
Marilyn Fries Endowed Regental Fellowship Recipient (2014)
ARCS Foundation Fellow (2014)
Harvey Mudd Computer Science Clinic Team Award Winner (2014)
Pomona College Marshall and Rhodes Scholarship Nominee (2013)
Six-Time Pomona College Scholar (2010-2013)
Grace Hopper Scholarship Recipient (2013)
DREU-CRAW Participant (2013)
National Merit Scholar (2010)

Talks

Supporting Patient-Provider Collaboration to Identify Individual Triggers Using Food and Symptom Journals. Session: Human Computer Interaction and Self-Tracking. *University of Washington Computer Science & Engineering Affiliates.* October 2016.

Workshop Publications

Mobile Health and Personal Informatics in Mental Health and Migraine. **Jessica Schroeder**. *Symposium on Computing and Mental Health* (CHI 2018).

Needs, Challenges, and Opportunities in Long-Term Tracking to Support Migraine Management. **Jessica Schroeder**, Natalia Murinova, James Fogarty, Sean Munson. *A Short Workshop on Next Steps Towards Long Term Self Tracking* (CHI 2018).

Supporting Patient-Provider Collaboration to Identify Individual Triggers using Food and Symptom Journals. **Jessica Schroeder**, Jane Hoffswell, Chia-Fang Chung, James Fogarty, Sean Munson, and Jasmine Zia. *Workshop on Interactive Systems in Healthcare* (CHI 2017).

Supporting Patient-Provider Communication and Relationships with Personal Informatics Data. Chia-Fang Chung, **Jessica Schroeder**, Jasmine Zia, James Fogarty, Julie A. Kientz, and Sean A. Munson. *Workshop on Quantified Data and Social Relationships* (CHI 2017).

Hypothesis Formation and Hypothesis Testing: Design Challenges in Self-Experimentation. Ravi Karkar, **Jessica Schroeder**, James Fogarty, Julie A. Kientz, Sean A. Munson, and Jasmine Zia. *Digital Health & Self-Experimentation Workshop* (CHI 2017).

Exploring New Design Directions for Menstrual Tracking Technology. Daniel A. Epstein, Nicole B. Lee, Jennifer H. Kang, Elena Agapie, **Jessica Schroeder**, Laura R. Pina, James Fogarty, Julie A. Kientz, Sean A. Munson. *Hacking Women's Health* (CHI 2017).

Using Personal Data in Everyday Life: Self-Experimentation in Personalized Health. Ravi Karkar, **Jessica Schroeder**, Jasmine Zia, Roger Vilardaga, James Fogarty, Sean A. Munson, and Julie A. Kientz. *Symposium on Use of Patient-Generated Data Beyond Self-Regulation* (ISRII 2016).

The Feasibility, Usability, and Perceived Clinical Utility of Traditional Paper Food and Symptom Journals for Patients with Irritable Bowel Syndrome. Jasmine Zia, Chia-Fang Chung, **Jessica Schroeder,** Jeanette Schenk, Sean A. Munson, Julie A. Kientz, James Fogarty, and Margaret Heitkemper. *The Federation of Neurogastroenterology & Motility*.

Posters

Examining Self-Tracking by People with Migraine: Goals, Needs, and Opportunities in a Chronic Health Condition. *University of Washington Computer Science & Engineering Affiliates*. November 2017.

Supporting Patient-Provider Collaboration to Identify Individual Triggers Using Food and Symptom Journals. *University of Washington Computer Science & Engineering Affiliates*. October 2016.

Personal Guidance on Individualized Food Triggers for IBS Patients. *University of Washington Computer Science & Engineering Affiliates.* October 2015.

Personal Guidance on Individualized Food Triggers for IBS Patients. *Intel Science and Technology Center for Pervasive Computing Retreat.* August 2015.

Teaching Experience

Teaching Assistant, CSE 510: Advanced Topics in HCI (Winter 2018)
Professor: James Fogarty. Helped with assignment design and project critique.

Writing Fellow, Pomona Writing Center (August 2011—May 2014)
Appointed position to work with other students to improve the content, organization, and mechanics of their academic papers, including essays, personal statements, and science-specific writing. Hosted workshops to teach students how to write lab reports, so they gain experience in writing papers for scientific journals. As Senior Science Writing Fellow for the 2013/2014 academic year, I oversaw improvements the Writing Center made to support scientific writing, including training Fellows to help students with scientific writing.

Professional Experience

Research Intern, Microsoft Research (Summer 2017)
Mentor: Mary Czerwinski. Investigating how mobile tools can support mental health patients with high clinical complexity.

Project Manager, Harvey Mudd Clinic (August 2013—May 2014)
Project manager for a senior capstone project with Expedia, Inc.

Undergraduate Research Assistant, Carnegie Mellon HCII (Sumer 2013)
Mentor: Jennifer Mankoff's. Investigating how website augmentation to help users of a chronic illness forum find credible and useful information more quickly.

Research Intern, Stanford School of Medicine (Summers 2011 and 2012)
Mentor: Lu Chen. Neuroscience research at the Conte Center for Neuroscience Research.

Undergraduate Research Assistant, Pomona College (Spring of 2012)
Mentor: Andre Cavalcanti. Developed a web application to find fusion genes, which have implications in certain kinds of cancer.

Previous Work, Service, and Leadership

HCI Seminar Lead, UW Computer Science & Engineering (Winter 2017—Present)
Led improvements to the seminar and organized quarterly themes, presentations, and feedback

Reviewer (Fall 2016—Present)
Reviewed for the ACM Conference on Human Factors in Computing Systems (CHI 2017 and 2018), the ACM Conference on Computer Supported Cooperative Work (CSCW 2018), and the ACM Conference on Designing Interactive Systems (DIS 2018)

HCI Visit Days Coordinator, UW Computer Science & Engineering (Winter 2018)
Coordinated one-on-ones with faculty and current grad students; organized afternoon activity.

Graduate Student Admissions Volunteer, UW Computer Science & Engineering (Fall 2016)
Reviewed graduate student applications to advise on admissions.

New Graduate Orientation Leader, UW Computer Science & Engineering (Fall 2015)
Organized orientation for the new computer science graduate students at the University of Washington. Coordinated talks from student organizations, grad students, and every professor teaching a graduate course in the academic year.

Class Representative, University of Edinburgh Informatics Department (Fall 2012)
Acted as a liaison between faculty and students to help voice complaints, deliver suggestions, and learn about and improve the Informatics Program.

Volunteer, Miscellaneous Organizations (Fall of 2008—Present)
Participated in myriad volunteer opportunities including Equality California/the Human Rights Campaign; Organization for Special Needs Families; Pomona College Draper Center; AmeriCorps Jumpstart Little Readers Program; Go, Girl, Go!