# Daniel A. Epstein

## Education

#### 2012-Present University of Washington

Ph.D. Candidate in Computer Science & Engineering

Graduation expected Spring 2018

Areas: Human-Computer Interaction, Ubiquitous Computing

Advisors: James Fogarty, Sean Munson

Committee: James Fogarty, Sean Munson, David McDonald, Mira Dontcheva, Jessica Hullman

M.S. Computer Science & Engineering, Winter 2014

#### 2008-2012 University of Virginia

B.S. Computer Science with Highest Distinction Advisors: Kevin Skadron, Aaron Bloomfield

### Conference Publications

### $2017 \hspace{0.5cm} \textbf{C12} \hspace{0.5cm} \textbf{Friends Don't Need Receipts: The Curious Case of Social Awareness Streams}$

in the Mobile Payment App Venmo

Monica Caraway, Daniel A. Epstein, Sean A. Munson

Proceedings of the ACM: CSCW Online-First [Acceptance Rate 27%]

### C11 Examining Menstrual Tracking to Inform the Design of Personal Informatics Tools



Daniel A. Epstein, Nicole B. Lee, Jennifer H. Kang, Elena Agapie, Jessica Schroeder, Laura R. Pina, James Fogarty, Julie A. Kientz, Sean A. Munson

CHI 2017 [Acceptance Rate 25%] best paper award, top 1%

### C10 TummyTrials: A Feasibility Study of Using Self-Experimentation to Detect Individualized Food Triggers



Ravi Karkar, Jessica Schroeder, Daniel A. Epstein, Laura R. Pina, Jeffrey Scofield, James Fogarty, Julie A. Kientz, Sean A. Munson, Roger Vilardaga, Jasmine Zia

CHI 2017 [Acceptance Rate 25%] best paper honorable mention, top 5%

### 2016 C9 Reconsidering the Device in the Drawer: Lapses as a Design Opportunity in Personal Informatics

Daniel A. Epstein, Jennifer H. Kang, Laura R. Pina, James Fogarty, Sean A. Munson UbiComp 2016 [Acceptance Rate 24%]

C8 Taking 5: Work-Breaks, Productivity, and Opportunities for Personal Informatics for Knowledge Workers

Daniel A. Epstein, Daniel Avrahami, Jacob T. Biehl

CHI 2016 [Acceptance Rate 23%]

### C7 Crumbs: Lightweight Daily Food Challenges to Promote Engagement and Mindfulness

Daniel A. Epstein, Felicia Cordeiro, James Fogarty, Gary Hsieh, Sean A. Munson CHI 2016 [Acceptance Rate: 23%]

## C6 Beyond Abandonment to Next Steps: Understanding and Designing for

Life after Personal Informatics Tool Use

Daniel A. Epstein, Monica Caraway, Chuck Johnston, An Ping, James Fogarty, Sean A. Munson CHI 2016 [Acceptance Rate: 23%]

#### 2015 C5 A Lived Informatics Model of Personal Informatics

Daniel A. Epstein, An Ping, James Fogarty, Sean A. Munson UbiComp 2015 [Acceptance Rate: 30%]

### C4 Barriers and Negative Nudges: Exploring Challenges in Food Journaling

Felicia Cordeiro, Daniel A. Epstein, Edison Thomaz, Elizabeth Bales, Arvind K. Jagannathan, Gregory D. Abowd, James Fogarty
CHI 2015 [Acceptance Rate: 23%] best paper honorable mention, top 5%

C3 From "nobody cares" to "way to go!": A Design Framework for Social Sharing in Personal Informatics Daniel A. Epstein, Bradley H. Jacobson, Elizabeth Bales, David W. McDonald, Sean A. Munson CSCW 2015 [Acceptance Rate: 28%]

## 2014 C2 Taming Data Complexity in Lifelogs: Exploring Visual Cuts of Personal Informatics Data

Daniel A. Epstein, Felicia Cordeiro, Elizabeth Bales, James Fogarty, Sean A. Munson DIS 2014 [Acceptance Rate: 26%]

### 2013 C1 Fine-Grained Sharing of Sensed Physical Activity: A Value Sensitive Approach

Daniel A. Epstein, Alan Borning, James Fogarty UbiComp 2013 [Acceptance Rate: 23%]

## Journal Publication

### 2017 J1 Semi-automated tracking: A Balanced Approach for Self-Monitoring Applications

Eun Kyoung Choe, Saeed Abdullah, Mashfiqui Rabbi, Edison Thomaz, Daniel A. Epstein, Matthew Kay, Felicia Cordeiro, Gregory D. Abowd, Tanzeem Choudhury, James Fogarty, Bongshin Lee, Mark Matthews, Julie A. Kientz
IEEE Pervasive Computing, Volume 16 Issue 1

# Workshops Organized

### 2017 O2 New Frontiers of Quantified Self 3: Exploring Understudied Categories of Users

Amon Rapp, Federica Cena, Judy Kay, Bob Kummerfeld, Frank Hopfgartner, Till Plumbaum, Jakob Eg Larsen, Daniel A. Epstein, Rúben Gouveia UbiComp 2017 Workshop

### 2016 O1 New Frontiers of Quantified Self 2: Going Beyond Numbers

Amon Rapp, Federica Cena, Judy Kay, Bob Kummerfeld, Frank Hopfgartner, Till Plumbaum, Jakob Eg Larsen, Daniel A. Epstein, Rúben Gouveia UbiComp 2016 Workshop

## **Workshop Publications**

### 2017 W9 Exploring Opportunities for Storytelling with Everyday Personal Data

Daniel A. Epstein, James Fogarty, Sean A. Munson CHI 2017 Workshop (Quantified Data & Social Relationships)

#### 2017 W8 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 CHI 2017 Workshop (Hacking Women's Health)

#### 2015 W7 Personal Informatics in Everyday Life

Daniel A. Epstein UbiComp/ISWC 2015 Doctoral School

#### W6 Wearables of 2025: Designing Personal Informatics at a Broader Audience

Daniel A. Epstein, Nicole B. Lee, Elizabeth Bales, James Fogarty, Sean A. Munson CHI 2015 Workshop (Beyond Personal Informatics: Designing for Experiences with Data)

### 2014 W5 Failures in Sharing Personal Data on Social Networking Sites

Daniel A. Epstein, James Fogarty, Sean A. Munson UbiComp 2014 Workshop (Disasters in Personal Informatics: The Unpublished Stories of Failure and Lessons Learned)

### W4 Design Considerations for Socially Sharing Quantified Self

Daniel A. Epstein, Elizabeth Bales and Sean A. Munson CHI 2014 Workshop (Beyond Quantified Self: Data for Wellbeing)

### 2013 W3 Improving Personal Informatics Through Social Sharing

Daniel A. Epstein
UbiComp/ISWC 2013 Doctoral School (Junior Track)

### W2 Examining Obstacles to Sharing Fine-Grained Personal Activity Data

Daniel A. Epstein and James Fogarty

CHI 2013 Workshop (Personal Informatics in the Wild: Hacking Habits for Health & Happiness)

### 2012 W1 Multi-Granularity Redundancy in Multi-Core SIMT

Daniel A. Epstein, Kevin Skadron, and Brett H. Meyer (2012). DFM&Y 2012 (Workshop on Design for Manufacturability and Yield)

## **Posters**

### 2015 P2 Personal Informatics in Everyday Life

Daniel A. Epstein UbiComp 2015 Doctoral School

### P1 SIMD Performance and Yield Optimization with Multi-granularity Redundancy

Daniel A. Epstein, Kevin Skadron, and Brett H. Meyer DAC 2012 Work-in-Progress

## **Teaching Experience**

University of Washington

2016 Teaching Assistant

Advanced Topics in HCI (CSE 510), James Fogarty. Aided in course design, research project feedback

2015 Teaching Assistant

HCI Capstone (CSE 441), James Fogarty. Aided in course design, project critiques

2014 Head Teaching Assistant

Introduction to HCI (CSE 440), James Fogarty. Aided in course design, lecture preparation, biweekly project critiques, grading

2013-Present Research mentorship

Organized a Directed Research Group (HCDE 496/596), with Sean Munson from 2013 to 2015. Mentored 19 masters and undergraduate students on research projects in personal informatics over 5 quarters. Work from group resulted in C3, C5, C8, W4, with student coauthors on C3, C5, C8.

Individual Students mentored outside Directed Research Groups

Sol Choi (HCDE B.S.)

Jennifer Kang (CSE & iSchool B.S., coauthor on C9, C11, W8)

Tejas Bharadwaj (summer research, visiting from Bellevue High School)

King Xia (CSE B.S. honors thesis)

Jennifer Kam (summer research, visiting from Wellsley College)

2013-Present Tutor

Data Structures and Algorithms (CSE 373), Data Abstractions (CSE 332),

Software Design & Implementation (CSE 331), Database Systems Internals (CSE 444)

University of Virginia

2009-2012 Teaching Assistant

Introduction to Programming (CS 1110), Operating Systems (CS 4414),

Game Design (CS 4501), Algorithms (CS 4102), Program and Data Representation (CS 2150)

**Professional Experience** 

Summer Adobe, Research Intern, Creative Technologies Lab

2017 Mentor: Mira Dontcheva

Designing for storytelling with personal data

Summer FXPAL, Research Intern

2015 Mentors: Daniel Avrahami, Jacob Biehl

Understanding and designing for breaks taken by knowledge workers during the workday,

published in C6

2012-Present University of Washington, Research Assistant, DUB Group

Advisors: James Fogarty, Sean Munson

Exploring how personal informatics can fit into people's everyday lives

2010-2012 University of Virginia, Undergraduate Research Assistant, LAVA Lab

Advisors: Kevin Skadron, Brett Meyer

Examined using redundancy to increase the reliability of processor manufacturing in single-

instruction, multiple-data (SIMD) processors

**Summer** Microsoft, Software Development Engineer in Test Intern

2011, 2012 Wrote web service test framework for issuing game console commands for all major smartphones

## Awards, Honors, and Service

Program PervasiveHealth 2017

Committees CHI 2017 Workshop on Quantified Data and Social Relationships

CHI 2016 Late-Breaking Work

HealthWear 2016

UbiComp 2015 Workshop on New Frontiers in Quantified Self

Reviewing UbiComp/IMWUT 2014-2017

CHI 2014-2017 CSCW 2017-2018 DIS 2016-2017 UIST 2017

MobileHCI 2014 & 2015

Special recognitions for reviewing at DIS 2016, CSCW 2017, CHI 2017, DIS 2017

Student UbiComp 2017 Student Volunteer Chair

Volunteering UbiComp 2013, 2014, 2016

UIST 2016 Program Committee Meeting

CHI 2013

Other Service DUB Student Coordinator, 2016-2017

DUB Food Coordinator, 2013

University of Washington ACM International Collegiate Programming Contest Coach, 2013-2016

Awards Adobe Research Fellowship Finalist, 2017

Best Paper Award, CHI 2017 (for C11)

Best Paper Honorable Mention, CHI 2017 (for C10) Best Paper Honorable Mention, CHI 2015 (for C4)

UbiComp 2015 Travel Grant UbiComp 2013 Travel Grant

2012 Louis T. Rader UVA CS Departmental award for excellence in service 2011 Louis T. Rader UVA CS Departmental award for excellence in teaching

## Invited Talks and Guest Lectures

2017 Personal Tracking in Everyday Life

Fitbit, July 2017

**Everyday Personal Informatics** 

Guest Lecture, HCDE 419 (Concepts in HCI), University of Washington, May 2017

2016 Crumbs: Lightweight Daily Food Challenges to Promote Engagement and Mindfulness

Computer Science & Engineering Industrial Affiliates, University of Washington, October 2016

Behavior Change and Personal Informatics

Guest Lecture, HCDE 419 (Concepts in HCI), University of Washington, April 2016

Using Personal Data in Everyday Life: Actionable Insights, Self-Representation, and Eliciting Support International Society for Research on Internet interventions (ISRII) Scientific Meeting, April 2016

**Experiment Design and Statistics** 

Guest Lecture, CSE 510 (Advanced Topics in HCI), University of Washington, January 2016

2015 A Lived Informatics Model of Personal Informatics

Barriers and Negative Nudges: Exploring Challenges in Food Journaling

Computer Science & Engineering Industrial Affiliates, University of Washington, October 2015

A Lived Informatics Model of Personal Informatics FXPAL, September 2015

Personal Informatics in Everyday Life HCI Seminar, Stanford University, September 2015

Receiving Value and Social Support from Personal Informatics Data University of Maryland, January 2015

2014 More than Interaction Design: Exposing the Breadth of HCI

Guest Lecture, CS 3205 (HCI in Software Development), University of Virginia, October 2014

Task Analysis

Guest Lecture, CSE 440 (Introduction to HCI), University of Washington, October 2014

2013 Fine-Grained Sharing of Sensed Physical Activity: A Value Sensitive Approach Computer Science & Engineering Industrial Affiliates, University of Washington, October 2013

## Selected Press

2017 Chances Are Your Period App is B.S.

Elizabeth Narins, Cosmopolitan, May 2017

http://www.cosmopolitan.com/health-fitness/a9598638/period-app-accuracy/

Do Period Tracking Apps Work? They Might Not be as Accurate as You Think Georgina Lawton, Bustle, May 2017

https://www.bustle.com/p/do-period-tracking-apps-work-they-might-not-be-as-accurate-as-you-think-55743

Period tracking apps often 'disappoint' Gynaecology and Technology, May 2017

http://www.figo.org/news/period-tracking-apps-often-'disappoint'-0015561

How to Choose a Period Tracking App that Actually Works for You Health.com, Amanda MacMillan, May 2017 http://www.health.com/sexual-health/period-tracker-app-complaints

The Awful Pinkness of Period Apps The Atlantic, Sarah Zhang, May 2017

 $\underline{https://www.theatlantic.com/health/archive/2017/05/period-apps-pink/525207/2017/05$ 

Period-Tracking Apps get Failing Grade: They're Not Accurate. And They're Way Too Pink. STAT News, Usha Lee McFarling, May 2017

https://www.statnews.com/2017/05/02/period-tracking-apps-flaws/

2016 From the Community: What Happens When You Take Off Your Fitness Tracker?

Chicago Tribune, Advocate Christ Medical Center, September 2016

 $\frac{http://www.chicagotribune.com/suburbs/daily-southtown/community/chi-ugc-article-what-happens-when-you-take-off-your-fitness-t-2016-09-16-story.html}{}$ 

This is What Happens When You Stop Using Your Fitness Tracker Men's Fitness, Brittany Smith, September 2016

 $\underline{http://www.mensfitness.com/life/gearandtech/what-happens-when-you-stop-using-your-fitness-tracker$ 

From Guilt to Relief: The Emotional Impact of Giving Up Activity Tracking Yahoo! News, Digital Trends, September 2016

https://www.yahoo.com/news/guilt-relief-emotional-impact-giving-070948996.html

Why You Shouldn't Feel Guilty About Ditching Your Fitbit Time.com, Amanda MacMillan, September 2016 <a href="http://time.com/4500481/fitbit-fitness-tracker/">http://time.com/4500481/fitbit-fitness-tracker/</a>

Feel Guilty About Ditching Your Fitbit? You're Not Alone Health.com, Amanda MacMillan, September 2016 http://www.health.com/fitness/fitbit-use-guilt

New Reasons Why You Should Keep a Food Journal Wall Street Journal, Sumathi Reddy, May 2016 http://www.wsj.com/articles/new-reasons-why-you-should-keep-a-food-journal-1463419285

2015 Food Journaling not as Easy or Effective as it Should Be: Study
Consumer Affairs, Christopher Maynard, April 2015
<a href="https://www.consumeraffairs.com/news/food-journaling-not-as-easy-or-effective-as-it-should-be-study-041715.html">https://www.consumeraffairs.com/news/food-journaling-not-as-easy-or-effective-as-it-should-be-study-041715.html</a>

Why People Ditch Food Journal Apps
New York Magazine, Jesse Singal, April 2015
<a href="http://nymag.com/scienceofus/2015/04/why-people-ditch-food-journal-apps.html">http://nymag.com/scienceofus/2015/04/why-people-ditch-food-journal-apps.html</a>

2014 UW Study Finds Pros and Cons of Fitness Gadgets King 5 News, July 2014