CURRICULUM VITAE

Name **Shriti Raj**

Position Assistant Professor
Department of Computer Science, San Francisco State University

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Research I am an interdisciplinary researcher specializing in Human-Computer Interaction (HCI), Health Informatics, and Personal Informatics. I employ qualitative research methods to understand user practices of value generation from data. I design, develop, and evaluate data interfaces following a user-centered design process.

Education

Sep 2015 – Jun 2022 **Ph.D., Information**

University of Michigan, Ann Arbor

Advisor: Mark W. Newman

Thesis: Making sense of multidimensional health data to manage chronic conditions: Designing to support episode-driven data interaction

Sep 2013 – Jun 2015 **Master of Science, Information and Computer Sciences**

University of California Irvine, Irvine

Advisor: Yunan Chen

Thesis: Information Delivery from Healthcare Providers to Patients in Emergency Department: Opportunities for Patient-Centric Technology Design

Jul 2007 – May 2011 **Bachelor of Technology, Computer Science and Engineering**

Indian Institute of Technology (IIT BHU), Varanasi, India

Employment

Aug 2022 - Present **Assistant Professor**
Department of Computer Science, San Francisco State University, San Francisco, USA

May – Sep 2019 **User Experience Research Intern**
Tidepool, Palo Alto, USA

Jul 2011 – Aug 2013 **Analyst Developer**
Goldman Sachs, Bangalore, India

Honors and Awards

2022 Rackham Graduate Student Research Grant, University of Michigan

2021 Rackham Predoctoral Fellowship, University of Michigan

Best Graduate Student Instructor nomination 2020-21

Invited participation for Human Computer Interaction Consortium – HCIC

Special recognition for outstanding reviews for CHI 2021.

Certificate for Intercultural Leadership

2020 Special recognition for outstanding reviews for CSCW 2020

Selected for WISH (Workshop on Interactive Systems in Health) mentorship program

2019 CHI Best Paper Honorable Mention Award (P3)

Rackham Travel Award for IMWUT (P2)

2018 International Center Peer Adviser for international students, University of Michigan

Invited participation and travel award for Computing Research Association Grad Cohort Workshop, Washington DC

2015 Second position, Beal Student Design Competition, University of California Irvine

2010 Certificate of Merit for securing department rank 1 by Department of Computer Science and Engineering IIT BHU, India

2006 Certificate of Merit for academic excellence in Mathematics by Central Board of Secondary Education, India

Publications

Journals and Conferences (peer reviewed, original research, archived)

P1 2020 Xinghui Yan, **Shriti Raj**, Bingjian Huang, Sun Young Park, and Mark W. Newman. 2020. *Toward Lightweight In-situ Self-reporting: An Exploratory Study of Alternative Smartwatch Interface Designs in Context.* Proc. ACM Interact. Mob. Wearable Ubiquitous Technol. 4, 4, Article 158 (December 2020), 22 pages. https://doi.org/10.1145/3432212

IMWUT/UbiComp 2020, 20-25% acceptance rate

P2 2019 **Shriti Raj**, Joyce M. Lee, Ashley Garrity, and Mark W. Newman. 2019. *Clinical Data in Context: Towards Sensemaking Tools for Interpreting Personal Health Data.* Proc. ACM Interact. Mob. Wearable Ubiquitous Technol. 3, 1, Article 22 (March 2019), 20 pages. https://doi.org/10.1145/3314409

IMWUT/UbiComp 2019, 20-25% acceptance rate

P3 2019 **Shriti Raj**, Kelsey Toporski, Ashley Garrity, Joyce M. Lee, and Mark W. Newman. 2019. *"My blood sugar is higher on the weekends": Finding a Role for Context and Context-Awareness in the Design of Health Self-Management Technology*. In Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems (CHI '19). Association for. Computing Machinery, New York, NY, USA, Paper 119, 1–13. https://doi.org/10.1145/3290605.3300349

CHI 2019, **Best Paper Honorable Mention Award**, 23.8% acceptance rate

P4 2018 Gaurav Paruthi, **Shriti Raj**, Natalie Colabianchi, Predrag Klasnja, and Mark W. Newman. 2018. *Finding the Sweet Spot(s): Understanding Context to Support Physical Activity*

Plans. Proc. ACM Interact. Mob. Wearable Ubiquitous Technol. 2, 1, Article 29 (March 2018), 17 pages. https://doi.org/10.1145/3191761 I

MWUT/UbiComp 2018

P5 2018 Gaurav Paruthi, **Shriti Raj**, Seungjoo Baek, Chuyao Wang, Chuan-che Huang, Yung-Ju Chang, and Mark W. Newman. 2018. *Heed: Exploring the Design of Situated Self-Reporting Devices.* Proc. ACM Interact. Mob. Wearable Ubiquitous Technol. 2, 3, Article 132 (September 2018), 21 pages. https://doi.org/10.1145/3264942

MWUT/UbiComp 2018

P6 2017 **Shriti Raj**, Mark W. Newman, Joyce M. Lee, and Mark S. Ackerman. 2017. *Understanding Individual and Collaborative Problem-Solving with Patient-Generated Data: Challenges and Opportunities.* Proc. ACM Hum.-Comput. Interact. 1, CSCW, Article 88 (November 2017), 18 pages. https://doi.org/10.1145/3134723

CSCW 2017

P7 Sun Young Park, Yunan Chen, and **Shriti Raj**. 2017. *Beyond Health Literacy: Supporting Patient-Provider Communication during an Emergency Visit.* In Proceedings of the 2017 ACM Conference on Computer Supported Cooperative Work and Social Computing (CSCW '17). Association for Computing Machinery, New York, NY, USA, 2179–2192. https://doi.org/10.1145/2998181.2998357

CSCW 2017

Abstracts, Posters and Workshop Papers (lightly reviewed)

2022 **Shriti Raj**, and Mark W. Newman. *Envisioning the Design Space of AI-Powered Personal Health Data Interaction.* Workshop on Grand Challenges in Personal Informatics and AI, CHI 2022.

2019 **Shriti Raj**, Joyce M. Lee, Matthew Kay, and Mark W. Newman. *Towards Assessment of Personal Health Data Literacy in Type 1 Diabetes.* Workshop on Interactive Systems in Healthcare, CHI 2019.

2017 Gaurav Paruthi, **Shriti Raj**, Ankita Gupta, Chuan-Che Huang, Yung-Ju Chang, & Mark W Newman. *HEED: situated and distributed interactive devices for self-reporting*. UbiComp 2017.

2017 **Shriti Raj**. *Understanding the Use of Patient Generated Data in Type 1 Diabetes: Opportunities for Technology Design.* Computing Research Association Grad Cohort Workshop 2017.

Service

Membership

ACM

SIGCHI

AMIA

To the research community

2022 CHI Late-Breaking Work (LBW) Program Committee.

2021 CSCW student volunteer.

As a peer reviewer by invitation

2021 AMIA

2018 – 2021 IMWUT

2018 – 2022 CSCW

2019 – 2022 CHI

2019 – 2020 DIS

At the University of Michigan

2020 Graduate Rackham International (GRIN) mentor to international graduate students.

2016 Committee member and workshop organizer at DoIIIT, makerspace for University of Michigan School of Information.

To the society

2021 Volunteer for Verified4India to help COVID patients get timely access to resources.

2011 Organizer of Oxfam International fundraiser. Raised over 100,000 INR.

At IIT BHU

2009 – 2011 Co-Founder and Editor of institute magazine at IIT BHU.

Invited Talks and Panels

Research Presentation

2022 Workshop on Grand Challenges in Personal Informatics and AI, CHI 2022.

Northeastern University, Bouvè College of Health Sciences and The Roux Institute, Boston, USA.

University of San Francisco, Department of Computer Science, San Francisco, USA.

San Francisco State University, Department of Computer Science, San Francisco, USA.

2019 Tidepool, USA.

UbiComp 2019, London, UK.

CHI 2019, Glasgow, UK.

2018 CSCW 2018, Jersey City, USA.

2017 Ignite Talks Showcase by Lenovo and Healthdesignby.us Innovation Co+Lab, Ann Arbor, USA.

Guest Lecture

2021 Northwestern University - Human Computer Interaction in Health Communication Master's program taught by Asst. Prof. Matthew Kay.

2019 University of Michigan - Applied Clinical Informatics taught by Asst. Prof. Gabriela Marcu.

Panel and Workshop

2021 Panelist – University of Michigan School of Information new graduate student instructor training, Ann Arbor, USA.

2018 Panelist - University of Michigan Council on Global Engagement – Diversity, Equity and Inclusion efforts among the international students, Ann Arbor, USA.

Workshop - University of Michigan International Center - Communication and job search for international students, Ann Arbor, USA.

Teaching

At San Francisco State University, San Francisco

Fall 2022 Introduction to Computer Programming (Java)

At University of Michigan, Ann Arbor

Fall 2020 Introduction to Statistics and Data Analysis (R)

Fall 2016 Fundamentals of Human Behavior

At University of California, Irvine

Spring 2015 Information Retrieval

Fall 2014 Introduction to Programming (Python)

Supervised Students

Master's Thesis

2022 Till Scholich, School of Information, University of Michigan.

Qualitative Research

2021 Chloe Preble, School of Information, University of Michigan

2020 Toshi Gupta, School of Information, University of Michigan

2018 Kelsey Toporski, School of Information, University of Michigan.

Data Analysis, Visualizations, and Prototype Design

2021 Chloe Kuc, Biomedical Engineering, University of Michigan.

2020 Toshi Gupta, School of Information, University of Michigan.

Research Mentor

2017-2018 Xinghui Yan, School of Information, University of Michigan.

Peer Mentor

2020 Yufeng Gu, Computer Science, University of Michigan.

Research Experience

2015 – 2022 **University of Michigan, Ann Arbor, MI**

Designing health data interfaces for patients with chronic conditions (P2, P4).

Identifying the role of context and context-awareness in the design of tools to support self-management of health and wellbeing (P2, P3, P5).

Designing and evaluating self-reporting interfaces (P1, P6).

2014 – 2015 **University of California, Irvine, CA**

Identifying communication challenges between patients and clinicians in an emergency room to design communication technology (P7).

Industry Experience

2019 **User Experience Research Intern, Tidepool, USA**

Project: Understanding the use of Artificial Pancreas systems.

Led a user study to identify challenges and risks of using a DIY artificial pancreas system called DIY Loop by conducting a user survey with patients and interviews with clinicians.

Produced design recommendations that were implemented to reduce the risk of using DIY Loop.

Led the reporting of risks, challenges, and respective solutions for communication with the FDA and the participant pool.

2011 – 2013 **Analyst Developer, Goldman Sachs, India**

Led a data feed migration project split across teams in three time zones by proactively handling requirement analysis for several teams, client communication, and project status and timelines.

Led requirements engineering and implementation of a data quality checker framework by collaborating with Portfolio Managers and external data vendors and mastering the legacy data model for financial estimates.