

SUMMARY

I am a Human-Computer Interaction (HCI) and a personal health informatics researcher. I specialize in qualitative research methods. I conduct formative studies to understand practices; I employ a user-centered design process to create novel tools and approaches; and I perform tool evaluations to articulate design principles for tool development.

EDUCATION

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| 2015 – Present | University of Michigan, Ann Arbor, MI
PhD Candidate in Information Science <ul style="list-style-type: none">• Advisor: Mark W. Newman• Committee: Matthew Kay, Joyce M. Lee, Pedja Klasnja• GPA: 3.94 |
| 2013 - 2015 | University of California, Irvine, CA
MS in Information and Computer Sciences <ul style="list-style-type: none">• Advisor: Yunan Chen• GPA: 4.0 |
| 2007 - 2011 | Indian Institute of Technology (IIT BHU), Varanasi, India
Bachelor of Technology in Computer Science and Engineering <ul style="list-style-type: none">• GPA: 8.98/10.00 |

PUBLICATIONS

ACCEPTED CONFERENCE & JOURNAL PAPERS

- [P1] 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] **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] **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] **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]
- [P5] 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> [IMWUT/UbiComp 2018]
- [P6] 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> [IMWUT/UbiComp 2018]
- [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

- [1] **Shriti Raj**, Joyce M. Lee, Matthew Kay, and Mark W. Newman. *Towards Assessment of Personal Health Data Literacy in Type 1 Diabetes*. WISH@CHI 2019.
- [2] 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.
- [3] **Shriti Raj**. *Understanding the Use of Patient Generated Data in Type 1 Diabetes: Opportunities for Technology Design*. CRA Grad Cohort Workshop 2017.

RESEARCH EXPERIENCE

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| 2015 - Present | University of Michigan, Ann Arbor, MI <ul style="list-style-type: none"> • Understanding practices of interpreting Type 1 diabetes data to design sensemaking tools for patients (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 <ul style="list-style-type: none"> • Identifying communication challenges between patients and clinicians in an emergency room to design communication technology (P7). |

TEACHING EXPERIENCE

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| Fall 2016,
Fall 2020 | Graduate Student Instructor, University of Michigan, Ann Arbor, MI <ul style="list-style-type: none">• Fundamentals of Human Behavior (SI 588)• Introduction to Statistics and Data Analysis (SI 544) |
| 2014 - 2015 | Teaching Assistant, University of California, Irvine, CA <ul style="list-style-type: none">• Introduction to Programming• Software Engineering• Information Retrieval |

SUPERVISED STUDENTS

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|--------------------|--|
| Chloe Preble | <ul style="list-style-type: none">• Qualitative research to evaluate patient-facing health data visualizations, Summer 2021 master's student research assistant |
| Chloe Kuc | <ul style="list-style-type: none">• Research, development, and evaluation of health data visualizations – Winter and Summer 2021 undergraduate research assistant |
| Yufeng Gu | <ul style="list-style-type: none">• Navigating research as a first-year doctoral student - Graduate Rackham International mentorship program 2020 |
| Toshi Gupta | <ul style="list-style-type: none">• Review of Type 1 diabetes data visualizations, design exploration of novel data interfaces - Winter & Summer 2020 master's student research assistant. |
| Xinghui Yan | <ul style="list-style-type: none">• Context-aware experience sampling platform adaptation - Summer 2017 research intern at University of Michigan.• Qualitative data analysis and paper writing for P1. |
| Kelsey
Toporski | <ul style="list-style-type: none">• Qualitative data analysis and paper writing for P3 - Summer 2018 research intern at University of Michigan. |

PROFESSIONAL EXPERIENCE

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| 2019 | User Experience Research Intern, Tidepool, USA <ul style="list-style-type: none">• 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 <ul style="list-style-type: none">• 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. |

AWARDS

Rackham Predoctoral Fellowship 2021-22.

Special recognition for outstanding reviews for CHI 2021 and CSCW 2020.

Selected for WISH (Workshop on Interactive Systems in Health) mentorship program as a mentee, 2020.

CHI 2019 Best Paper Honorable Mention Award (P3).

Rackham Travel Award for IMWUT 2019 (P2).

Selected International Center Peer Adviser for new international students at University of Michigan, Summer 2018.

Invited participation and travel award for Computing Research Association Grad Cohort Workshop in Washington DC, Spring 2017.

Second position with a \$5000 prize money in Beal Student Design Competition, University of California Irvine, Spring 2015.

Certificate of Merit for securing department rank 1 by Department of Computer Science and Engineering IIT-BHU for academic year 2009-2010.

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

INVITED TALKS

Guest lecture in a course on Human Computer Interaction in Health Communication Master's program taught by Asst. Prof. Matthew Kay at Northwestern University, Winter 2021.

Research presentation at [Tidepool](#), Summer 2019.

Paper presentation at [UbiComp 2019](#).

Paper presentation at [CHI 2019](#).

Guest lecture in a course on Applied Clinical Informatics taught by Asst. Prof. Gabriela Marcu at University of Michigan, Winter 2019.

Panelist for University of Michigan Council on Global Engagement to discuss perceptions of diversity, equity, and inclusion efforts among the international students, Fall 2018.

Paper presentation at [CSCW 2018](#).

Workshop on communication and job search in graduate school for University of Michigan international student 2018 cohort, Summer 2018.

Lightning talk at Ignite Talks Showcase by Lenovo and [Healthdesignby.us](#) Innovation Co+Lab, Winter 2017.

SERVICE

Paper reviewer for CHI 2021, CSCW 2021, CHI 2020, CSCW 2020, DIS 2020, CHI 2019, IMWUT 2019, DIS 2019, CSCW 2018, and IMWUT 2018.

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

[DoIIT](#) committee member and workshop organizer for Fall 2016.

Fundraiser for Oxfam International 2011, raised over 100,000 INR.

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