

# YASAMAN S. SEFIDGAR

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I am a Human-Computer Interaction researcher working on improving systems that help people collect and use data. I am especially interested in personal data tools for health. I build systems, design interaction techniques, and develop computational algorithms that allow individuals to control data and AI systems and align these systems to their evolving needs.

## EDUCATION



- 2020–2025 **University of Washington, Seattle, WA, USA**  
**Ph.D.** in Computer Science and Engineering  
*Thesis: Goal-Centered Personal Informatics Tools*  
Committee: James Fogarty, Sean Munson, Jina Suh, Jeff Heer, Andrea Hartzler
- 2017–2019 **University of Washington, Seattle, WA, USA**  
**M.Sc.** in Computer Science and Engineering  
*Area: End-User Programming of Robots & Ubiquitous Computing for Diversity*  
Advisors: Maya Cakmak, Jen Mankoff
- 2013–2014 **Simon Fraser University, Burnaby, BC, Canada**  
**M.Sc.** in Computer Science  
*Area: Computer Vision & Machine Learning*  
Advisor: Greg Mori
- 2010–2012 **University of British Columbia, Vancouver, BC, Canada**  
**M.Sc.** in Computer Science  
*Area: Human-Computer Interaction & Haptics*  
Advisor: Karon MacLean
- 2005–2009 **Sharif University of Technology, Tehran, Iran**  
**B.Sc.** in Computer Engineering  
*Area: Computer Hardware Engineering*

## AWARDS & HONORS

- 2024 **Schmidt Science Fellowship Nominee** (University of Washington; advanced to global competitions)  
**Best Paper Award of CHI 2024 for P17** (ACM CHI, top 1%)  
**Dissertation Fellowship Finalist** (American Association for University Women, \$25,000)
- 2023 **Distinguished Paper Award of IMWUT 2023 for P15** (ACM UbiComp, top 1%)
- 2021–2023 **Meta PhD Fellowship** (Meta, \$42,000 annually)
- 2019 **IBM Fellowship Nominee** (Allen School)
- 2017 **Honorable Mention Award of HRI 2017 for P3** (ACM HRI, top 5%)
- 2015 **Health Systems Management Award** (Ontario Health, CAD \$1,000)
- 2012 **Haptics Symposium Best Demo Honorable Mention** (IEEE HS)
- 2009 **Merit Scholarship** (University of British Columbia, top 8% of Computer Science)
- 2008 **Exceptional Talent Award** (Sharif University of Technology, top 5% of Computer Engineering)
- 2005 **Top 0.01% of Math and Engineering Undergraduate Students Nation-wide** (Iran)

# PUBLICATIONS

## REFEREED JOURNAL AND CONFERENCE PAPERS

- 2024 P19 **GLOBEM: Cross-Dataset Generalization of Longitudinal Human Behavior Modeling**  
Xu X., Liu X., Zhang H., Wang W., Nepal S., **Sefidgar Y.S.**, Seo W., Kuehn K.S., Huckins J.F., Morris M.E., Nurius P.S., Riskin E., Patel S., Althoff T., Campbell A.T., Dey A.K., Mankoff J.  
*GetMobile: Mobile Computation and Communication* [DOI]
- P18 **College Students' Daily Mind Wandering Is Related to Lower Social Well-Being**  
Beloborodova P., Dutcher J.M., Villalba D.K., Tumminia M.J., Doryab A., Creswell K., Cohen S., **Sefidgar Y.S.**, Seo W., Mankoff J., Dey A.K., Creswell D., Brown K.W.  
*Journal of American College Health* [DOI]
- P17  **MigraineTracker: Examining Patient Experiences with Goal-Directed Self-Tracking for a Chronic Health Condition**  
**Sefidgar Y.S.**, Castillo C.L., Chopra S., Jiang L., Jones T., Mittal A., Ryu H., Schroeder J., Cole A., Marinova N., Munson S., Fogarty J.  
*CHI'24 Conference on Human Factors in Computing Systems* [DOI]  
Best Paper Award
- P16 **Improving Work-Nonwork Balance with Data-Driven Implementation Intention with Mental Contrasting**  
**Sefidgar Y.S.**, Jörke M., Suh J., Saha K., Iqbal S., Ramos G., Czervinski M.  
*CSCW'24 ACM Conference on Computer-Supported Cooperative Work* [DOI]
- 2023 P15  **GLOBEM: Cross-Dataset Generalization of Longitudinal Human Behavior Modeling**  
Xu X., Liu X., Zhang H., Wang W., Nepal S., **Sefidgar Y.S.**, Seo W., Kuehn K.S., Huckins J.F., Morris M.E., Nurius P.S., Riskin E., Patel S., Althoff T., Campbell A.T., Dey A.K., Mankoff J.  
*IMWUT'23 ACM Interactive, Mobile, Wearable & Ubiquitous Technologies Proceedings* [DOI]  
Distinguished Paper Award
- P14 **Pearl: A Technology Probe for Machine-Assisted Reflection on Personal Data**  
Jörke M., **Sefidgar Y.S.**, Massachi T., Suh J., Ramos G.  
*IUI'23 Conference on Intelligence User Interfaces* [DOI]
- P13 **Nightly Sleep Duration Predicts Grade Point Average in the First Year of College**  
Creswell D., Tumminia M.J., Price S., **Sefidgar Y.S.**, Cohen S., Ren Y., Brown J., Dey A.K., Dutcher J.M., Villalba D., Mankoff J., Xu X., Creswell K., Doryab A., Mattingly S., Striegel A., Hachen D., Martinez G., Lovett M.C.  
*PNAS'23 Proceedings of the National Academy of Sciences of the USA* [DOI]
- 2022 P12 **GLOBEM Dataset: Multi-Year Datasets for Longitudinal Human Behavior Modeling Generalization**  
Xu X., Zhang H., **Sefidgar Y.S.**, Ren Y., Liu X., Seo W., Brown J., Kuehn K.S., Merrill M., Nurius P.S., Patel S., Althoff T., Morris M.E., Riskin E., Mankoff J., Dey A.K.  
*NeurIPS'23 Advances in Neural Information Processing Systems* [Link]
- P11 **Lack of Belonging Predicts Depressive Symptomatology in College Students**  
Dutcher J.M., Lederman J., Jain M., Price S., Kumar A., Villalba D.K., Tumminia M.J., Doryab A., Creswell K., Riskin E., **Sefidgar Y.S.**, Seo W., Mankoff J., Cohen S., Dey A.K., Creswell D.  
*Psychological Science* [DOI]
- P10 **Impact of Online Learning in the Context of COVID-19 on Undergraduates with Disabilities and Mental Health Concerns**  
Zhang H., Morris, M.E., Nurius P.S., Mack K., Brown J., Kuehn K.S., **Sefidgar Y.S.**, Xu X.,

Riskin E., Dey A.K., Mankoff J.

*ACM Transactions on Accessible Computing* [DOI]

- 2021 P9 **College from Home during COVID-19: a Mixed-methods Study of Heterogeneous Experiences**  
Morris M.E., Kuehn K.S., Brown J., Nurius P.S., **Sefidgar Y.S.**, Riskin E., Dey A.K., Xu X.,  
Consolvo S., Mankoff J.  
*PloS one* [DOI]
- P8 **Distress Among Undergraduates: Marginality, Stressors and Resilience Resources**  
Nurius P., **Sefidgar Y.S.**, Kuehn K.S., Jung J., Zhang H., Figueira O., Dey A.K., Riskin E.,  
Mankoff J.  
*Journal of American College Health* [DOI]
- P7 **Leveraging Collaborative-Filtering for Personalized Behavior Modeling: a Case Study of  
Depression Detection among College Students**  
Xu X., Chikersal P., Dutcher J.M., Sefidgar Y.S., Seo W., Tumminia M.J., Villalba D.K., Cohen  
S., Creswell K., Creswell D., Doryab A., Nurius P.S., Riskin E., Dey A.K., Mankoff J.  
*IMWUT'21 ACM Interactive, Mobile, Wearable & Ubiquitous Technologies Proceedings* [DOI]
- 2019 P6 **Passively Sensed Behavioral Correlates of Discrimination Events in College Students**  
**Sefidgar Y.S.**, Seo W., Kuehn K.S., Althoff T., Browning A., Riskin E., Nurius P., Dey A.K.,  
Mankoff J.  
*CSCW'19 ACM Conference on Computer-Supported Cooperative Work* [DOI] [Press]
- P5 **Using Passive Data Monitoring and Machine Learning Algorithms to Examine Negative  
Affect and Coping Behaviors Among College Students Experiencing Suicidal Ideation**  
Kuehn K.S., **Sefidgar Y.S.**, Nurius P., Browning A., Riskin E., Dey A.K., Mankoff J.  
*IASR/AFSP International Summit on Suicide Research* Link
- 2018 P4 **RobotIST: Interactive Situated Tangible Robot Programming**  
**Sefidgar Y.S.**, Weng T., Harvey H., Elliott S., Cakmak M.  
*SUI'18 ACM Symposium on Spatial User Interaction* [DOI]
- 2017 P3 **Situated Tangible Robot Programming**  
 **Sefidgar Y.S.**, Agarwal P., Cakmak M.  
*HRI'17 International Conference on Human-Robot Interaction* [DOI]  
Best Paper Honorable Mention
- 2016 P2 **Design and Evaluation of a Touch-Centered Calming Interaction with a Social Robot**  
**Sefidgar Y.S.**, MacLean K.E., Yohanan S., Van der Loos M., Croft E.A., Garland E.J.  
*IEEE Transactions on Affective Computing* [DOI]
- 2015 P1 **Discriminative Key-Component Models for Interaction Detection and Recognition**  
**Sefidgar Y.S.**, Vahdat A., Se S., Mori G.  
*Computer Vision and Image Understanding* [DOI]

## UPCOMING MANUSCRIPTS IN PREPARATION OR SUBMISSION

- U23 **Analyticons: an Architecture for End-user Interactive Analysis of Personal Data**  
**Sefidgar Y.S.**, Suh J., Munson S., Heer J., Fogarty J.
- U22 **Submodular Behavior Summarization**  
**Sefidgar Y.S.**, Sharma A., Riskin E., Nurius P.S., Dey A.K., Mankoff J., Fogarty J., Althoff T.
- U21 **Examining Needs and Opportunities for Supporting Students Who Experience Discrimination**  
**Sefidgar Y.S.**, Nurius P.S., Baughan A., Elkin L., Dey A.K., Riskin E., Mankoff J., Morris M.

- U20 **Examining Information Goals in Self-Tracking for Chronic Condition Management: Case Study of Migraine**  
**Sefidgar Y.S.**, Castillo C.L., Chopra S., Ryu H., Munson S., Fogarty J.  
*CHI'25 Conference on Human Factors in Computing Systems Case Studies*

## DOCTORAL SYMPOSIA

- 2024 DS3 **Supporting Control and Alignment in Personal Informatics Tools**  
**Sefidgar Y.S.**  
*UIST'24 Adjunct ACM Symposium on User Interface Software and Technology* [\[DOI\]](#)
- 2023 DS2 **Tools to Support Health and Well-being with Personal Data**  
**Sefidgar Y.S.**  
*CSCW'23 Companion Publication of ACM Conference on Computer Supported Cooperative Work and Social Computing* [\[DOI\]](#)
- 2018 DS1 **End-User Programming of Manipulator Robots in Situated Tangible Programming Paradigm**  
**Sefidgar Y.S.**, Cakmak M.  
*HRI-Pioneers'18 Human-Robot Interaction Pioneers Workshop* [\[DOI\]](#)

## CASE STUDIES, WORKSHOPS, POSTERS, AND WORKS-IN-PROGRESS

- 2023 CS1 **Lessons Learned for Data-Driven Implementation Intentions with Mental Contrasting**  
**Sefidgar Y.S.**, Jörke M., Suh J., Saha K., Iqbal S., Ramos G., Czervinski M.  
*CHI'23 Conference on Human Factors in Computing Systems Case Studies* [\[DOI\]](#)
- 2017 W2 **Programming Robot Manipulators with Tangible Blocks**  
**Sefidgar Y.S.**, Cakmak M.  
*Workshop on Evaluation and Usability of Programming Languages and Tools* [\[Link\]](#)
- W1 **A System for Situated Tangible Programming of Robot Skills**  
**Sefidgar Y.S.**, Elliott S., Cakmak M.  
*Workshop on Learning for Collaborative Robotics: Enabling Flexible, Redeployable and Agile Industrial Applications* [\[Link\]](#)
- 2012 PS1 **Emotional Communication and Implicit Communication through Touch**  
MacLean K.E., Yohanan S., **Sefidgar Y.S.**, Pan M.K.X.J., Croft E.A., McGrenere J.  
*Affective Haptics Workshop – Haptics Symposium* [\[Link\]](#)
- 2011 WP1 **TAMER: Touch-guided Anxiety Management via Engagement with a Robotic pet**  
**Sefidgar Y.S.**, MacLean K.E., Croft E.A., Van der Loos M., Garland E.J., Yohanan S.  
*Work In Progress - Graphics, Animation, and New Media*

## PROFESSIONAL APPOINTMENTS

- 2020–2025 **University of Washington, Seattle, WA, USA**  
*Student Researcher in Design, Use, & Build Group*  
Mentors: James Fogarty, Sean Munson, Jeff Heer  
Examining frameworks, interaction techniques, and architectures for personal data tools  
[P17, U20, U23]

- 2022 **Microsoft Research, Redmond, WA, USA**  
*Research Intern in Human Empathy & Understanding Group*  
 Mentors: Jina Suh, Mary Czervinski  
 Designing and evaluating scaffolding techniques for behavior change  
 [CS1, P14, P16]
- 2018–2020 **University of Washington, Seattle, WA, USA**  
*Student Researcher in Make4All Lab*  
 Mentors: Paula Nurius, Jen Mankoff  
 Developing computational infrastructure and algorithms to quantify social adversities  
 [P5, P6, P7, P8, P9, P10, P11, P12, P13, P15, P18, P19, U21, U22]
- 2016–2018 **University of Washington, Seattle, WA, USA**  
*Research Associate in Human-Centered Robotics Lab*  
 Mentor: Maya Cakmak  
 Designing and evaluating end-user robot programming tools  
 [W1, W2, P3, P4]
- 2014–2015 **Jonah Consulting Inc, Toronto, ON, Canada**  
*Technical Developer*  
 Mentor: Mathew Solo  
 Developing solutions for healthcare and financial clients
- 2012–2014 **Simon Fraser University, Burnaby, BC, Canada**  
*Student Researcher in Vision & Media Lab*  
 Mentors: Greg Mori  
 Developing human-object interaction models  
 [P1]
- 2010–2012 **University of British Columbia, Vancouver, BC, Canada**  
*Student Researcher in Sensory Perception & Interaction Lab*  
 Mentors: Karon MacLean  
 Designing affective haptic robot behaviors  
 [WP1, PS1, P2]

## TALKS

- 2024 **UIST’24 Doctoral Symposium**  
 Supporting Control and Alignment in Personal Informatics Tools
- CHI’24 Chronic Conditions A**  
 MigraineTracker: Examining Patient Experiences with Goal-Directed Self-Tracking for a Chronic Health Condition
- 2023 **CSCW’23 Doctoral Consortium**  
 Tools to Support Health and Well-being with Personal Data
- DUB’23 Doctoral Consortium**  
 Tools to Support Health and Well-being with Personal Data
- CHI’23 Case Studies**  
 Lessons Learned for Data-Driven Implementation Intentions with Mental Contrasting
- 2022 **Microsoft Research, Applied Research Invited Talk Series**  
 WoNoB: Improving Work-Nonwork Balance with Personal Data

## **Microsoft Research, HCI Seminar**

WoNoB: Improving Work-Nonwork Balance with Personal Data

- 2019 **CSCW'19 Language & Expressivity II**  
Passively Sensed Behavioral Correlates of Discrimination Events in College Students
- 2018 **SUP'18 Robotics & Wearables**  
RobotIST: Interactive Situated Tangible Robot Programming
- 2017 **PLETEAU'17 Language, DSL, & Feature Design**  
Programming Robot Manipulators with Tangible Blocks
- HRI'17 Teaching Robots**  
Situated Tangible Robot Programming

## **RESEARCH MENTORING EXPERIENCE**

### **PROJECT-FOCUSED GRADUATE PEER MENTORING**

- 2020-2023 Carla Castillo, Human-Centered Design & Engineering, University of Washington
- 2019-2020 Han Zhang, Computer Science & Engineering, University of Washington

### **UNDERGRADUATE MENTORING**

- 2018-2020 Bowen Xu, Computer Science & Engineering, University of Washington
- 2019-2020 Jake Jung, Computer Science & Engineering, University of Washington
- 2018-2019 Ying Wang, Computer Science & Engineering, University of Washington
- 2018-2019 Estelle Jiang, Computer Science & Engineering, University of Washington
- 2020 Jyoti Lama, Computer Science & Engineering, University of Washington
- Jonathan Zhao, Computer Science & Engineering, University of Washington
- 2019 Sean Keever, Computer Science & Engineering, University of Washington
- Zongyuan Checn, Computer Science & Engineering, University of Washington
- Olivia Figueira, Computer Science & Engineering, Santa Clara University (DREU internship)
- 2018 Geovani Castro, Computer Science & Engineering, University of Washington
- Mayki Hu, Computer Science & Engineering, University of Washington
- Nicole Riley, Computer Science & Engineering, University of Washington
- Shohbit Jain, Computer Science & Engineering, University of Washington

## **TEACHING EXPERIENCE**

- 2024'Winter **Human-Computer Interaction**, Computer Science & Engineering, University of Washington  
Graduate teaching assistant; duties: lab sections and grading (64 undergraduates)
- 2017'Spring **Human-Computer Interaction**, Computer Science & Engineering, University of Washington  
Lead graduate teaching assistant; duties: lab sections and grading (29 professionals)
- 2013'Spring **Data Structures and Algorithms**, Computer Science, Simon Fraser University  
Teaching assistant; duties: lab sections and grading (100 undergraduates)
- 2013'Spring **Scientific Computer Programming**, Computer Science, Simon Fraser University  
Graduate teaching assistant; duties: lab sections and grading (40 non-majors)
- 2010'Spring **Introduction to Computing in Engineering**, Computer Science, University of British Columbia  
Graduate teaching assistant; duties: lab sections and grading (250+ undergraduates)

2009'Fall	<b>Introduction to Computing in Engineering</b> , Computer Science, University of British Columbia Graduate teaching assistant; duties: lab sections and grading (250+ undergraduates)
2009'Spring	<b>Signals &amp; Systems</b> , Computer Engineering, Sharif University of Technology Undergraduate teaching assistant; duties tutorials (80+ undergraduates)
2008'Fall	<b>Signals &amp; Systems</b> , Computer Engineering, Sharif University of Technology Undergraduate teaching assistant; tutorials (80+ undergraduates)
2008'Fall	<b>Linear Control Systems</b> , Computer Engineering, Sharif University of Technology Undergraduate teaching assistant; held tutorials (20 undergraduates)

## SERVICE

### STUDENT EMPOWERMENT

2020-2022	Computer Science & Engineering, University of Washington Member of Graduate Student Council
2020-2022	Computer Science & Engineering, University of Washington Member of Diversity, Equity and Inclusion Committee
2012-2013	Computer Science, Simon Fraser University Member of Women in Computing
2011	Computer Science, University of British Columbia Peer mentor in Tri-Mentoring Program

### ORGANIZER

2014	Pacific North West Celebration of Women in Computing Conference Poster Competition
2011	Computer Science, University of British Columbia HCI Grad Research Forum

### REVIEWER

2024	ACM CHI ACM CSCW ACM IMWUT (Interactive, Mobile, Wearable & Ubiquitous Technologies)
2023	ACM CHI ACM ToCHI (Transactions on Computer-Human Interaction)
2022	ACM CHI
2021	ACM CSCW ACM CHI
2020	ACM CSCW (Conference on Computer-Supported Cooperative Work) ACM CHI
2017	Robotics and Computer Integrated Manufacturing ACM CHI (Conference on Human Factors in Computing Systems)
2016	IEEE RO-MAN (International Symposium on Robot and Human Interactive Communications) ACM HRI (International Conference on Human-Robot Interaction)
2015	International Journal of Human-Computer Studies

## SELECTED MEDIA COVERAGE

- 2019 [Discrimination Influences Student Activity and Mood](#)  
Inside Higher Ed, Nov 06, 2019

## EXTRACURRICULAR

### ATHLETIC AWARDS

- 2007 Badminton Competitions, Sharif University of Technology  
Champion
- 2006 Badminton Competitions, Sharif University of Technology  
Champion

## REFERENCES

### **James Fogarty**

Professor, Computer Science & Engineering, Unveristy of Washington  
jfogarty@cs.washington.edu

### **Sean Munson**

Professor, Human Centered Design & Engineering, Unveristy of Washington  
smunson@uw.edu

### **Tim Althoff**

Associate Professor, Computer Science & Engineering, Unveristy of Washington  
althoff@cs.washington.edu

### **Jina Suh**

Principal Researcher, Microsoft Research  
jinsuh@microsoft.com

### **Paula S. Nurius**

Professor, School of Social Work  
nurius@uw.edu