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

U4 **Analyticons: an Architecture for End-user Interactive Analysis of Personal Data**
Sefidgar Y.S., Suh J., Munson S., Heer J., Fogarty J.

U3 **Submodular Behavior Summarization**
Sefidgar Y.S., Sharma A., Riskin E., Nurius P.S., Dey A.K., Mankoff J., Fogarty J., Althoff T.

U2 **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.

U1 **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 Symposiums

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 Desgin, Use, & Build Group
Mentors: James Fogarty, Sean Munson, Jeff Heer
Examining frameworks, interaction techniques, and architectures for personal data tools [P17, U1, U4]

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, U2, U3]

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 clients in healthcare and financial sectors

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 **SUI'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
2017 Heather Harvey, Computer Science & Engineering, University of Washington
2016-2017 Prerna Agarwal, 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 **Introduction to Computing in Engineering**, Computer Science, University of British Columbia
Graduate teaching assistant; duties: lab sections and grading (250+ undergraduates)

2009'Spring **Signals & Systems**, Computer Engineering, Sharif University of Technology
Undergraduate teaching assistant; duties tutorials (80+ undergraduates)

2008'Fall **Signals & Systems**, Computer Engineering, Sharif University of Technology
Undergraduate teaching assistant; tutorials (80+ undergraduates)

2008'Fall **Linear Control Systems**, 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

Public Outreach

2016 Industry Affiliates Day, Allen School
People's Choice Award for P3

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