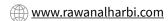
# RAWAN ALHARBI | Curriculum Vitae



rawan.alharbi@northwestern.edu

## Research Interests

The main goal of my research is to enable a sustainable future for wearable systems. I work in the intersection of human-computer interaction, systems, and machine learning, exploring how we can design wearable systems that are practical, long-lived, accurate, and helpful without sacrificing important social values.

### Education

June 2022	<b>Ph.D. in Computer Science, Northwestern University</b> Dissertation Title: Reimagining Visual Wearable Systems Advisor: Nabil Alshurafa
2016	M.S. in Computer Science, Northwestern University  Thesis Title: Opportunistic tangible programming by demonstration for physical components  Advisor: Micheal Horn
2011	B.S. in Computer Science, Prince Sultan University

# Awards and Achievements

2021	The Peter and Adrienne Barris Outstanding Teaching Award
2020	Rising Stars in EECS
2019	SIGCHI Student Travel Award
2018	UbiComp Travel Award
2017	Best Poster Award at 2017 Obesity Week (eHealth/mHealth Section)
2016	Best Paper Award at IEEE BODYNET
2016	PerCom NSF Travel Award

# **Publications**

### Peer-Reviewed Journals and Conference Publications

[C05] Heatsight: Wearable low-power omni thermal sensing

> Rawan Alharbi, Chunlin Feng, Sougata Sen, Jayalakshmi Jain, Josiah Hester, Nabil Alshurafa ACM Conference on Pervasive and Ubiquitous Computing (Ubicomp/ISWC'21) Published in ISWC

[CO4] To mask or not to mask? Balancing privacy with visual confirmation utility in activity-oriented wearable cameras

Rawan Alharbi, Mariam Tolba, Lucia C Petito, Josiah Hester, Nabil Alshurafa ACM Conference on Pervasive and Ubiquitous Computing (UbiComp'19)
Published in PACM IMWUT

[CO3] Is more always better? Discovering incentivized mHealth intervention engagement related to health behavior trends

Nabil Alshurafa, Jayalakshmi Jain, <u>Rawan Alharbi</u>, Gleb Iakovlev, Bonnie Spring, Angela Pfammatter ACM Conference on Pervasive and Ubiquitous Computing (UbiComp'19) Published in PACM IMWUT

- [C02] I can't be myself: Effects of wearable cameras on the capture of authentic behavior in the wild Rawan Alharbi, Tammy Stump, Nilofar Vafaie, Angela Pfammatter, Bonnie Spring, Nabil Alshurafa ACM Conference on Pervasive and Ubiquitous Computing (UbiComp'18)

  Published in PACM IMWUT
- [C01] \* Food watch: Detecting and characterizing eating episodes through feeding gestures

  Shibo Zhang, Rawan Alharbi, William Stogin, Mohamad Pourhomayun, Bonnie Spring, Nabil Alshurafa

  EAI International Conference on Body Area Networks (BodyNets'16)

  Best Paper Award
- Publications Under Review or Preparation
- [R02] SmokeMon: Unobtrusive Wearable for Measuring Smoking Topography
- [R01] ActiSight: Wearer Foreground Extraction using a Practical RGB-Thermal Wearable
- Peer-Reviewed Workshop Papers and Extended Abstracts
- [W09] Measuring smoking topography in natural settings using non-contact passive wearable sensors Rawan Alharbi, Bonnie Spring, Nabil Alshurafa Annals Of Behavioral Medicine (SBM'20)
- [W08] "I am not an engineer": Understanding how clinicians design & alter assistive technology Rahaf Alharbi, Ada Ng, <u>Rawan Alharbi</u>, Josiah Hester ACM CHI Conference on Human Factors in Computing Systems - Extended Abstract (EA CHI'20)
- [W07] **Detecting real time episodic overeating for just in time interventions**Nabil Alshurafa, <u>Rawan Alharbi</u>, Angela F Pfammatter, Bonnie Spring *Annals Of Behavioral Medicine* (SBM'18)
- [W06] From sensing to theory: Implications of capturing naturally occurring behaviors in the wild Angela F Pfammatter, Rawan Alharbi, Nabil Alshurafa, Bonnie Spring Annals Of Behavioral Medicine (SBM'18)
- [W05] Investigating barriers and facilitators to wearable adherence in fine-grained eating detection Rawan Alharbi, Nilofar Vafaie, Kitty Liu, Kevin Moran, Gwendolyn Ledford, Angela Pfammatter, Bonnie Spring, and Nabil Alshurafa.

  IEEE Conference on Pervasive Computing and Communications Workshop (PerCom'17 Workshop)
- [W04] Intuito: Opportunistic tangible programming by demonstration for physical components
  Rawan Alharbi, Nabil Alshurafa, Michael Horn
  ACM CHI Conference on Human Factors in Computing Systems Extended Abstract (EA CHI'17)

[W03] Willsense: Adherence barriers for passive sensing systems that track eating behavior Rawan Alharbi, Angela Pfammatter, Bonnie Spring, Nabil Alshurafa ACM CHI Conference on Human Factors in Computing Systems - Extended Abstract (EA CHI'17)

[W02] From lab to field: Eating detection machine learning models, privacy, stigma and user-comfort of wearables

Nabil Alshurafa, <u>Rawan Alharbi</u> Annals Of Behavioral Medicine (SBM'17)

[W01] When generalized eating detection machine learning models fail in the field

Shibo Zhang, <u>Rawan Alharbi</u>, Matthew Nicholson, Nabil Alshurafa ACM Conference on Pervasive and Ubiquitous Computing - Extended Abstract (EA UbiComp'17)

# **Teaching Experience**

### At Northwestern University

2022 Computing Everywhere: Detecting Human Activities Using Wearable Sensors

Co-Instructor and Workshop Designer

2021 COMP\_SCI 397/497: Wireless, and Mobile Health (mHealth)

Instructor and Course Designer, Winter Quarter 2021

2020 BDSD Workshop: Analyzing Human Behavior and Lifestyle Using Wearable Sensors Workshop

Instructor and Workshop Designer

2019 Computing Everywhere: Building Android App

Co-Instructor and Workshop Designer

# Selected Talks

#### Conference Talks

2021 Heatsight: Wearable low-power omni thermal sensing

UbiComp / ISWC 2021

To mask or not to mask? Balancing privacy with visual confirmation utility in activity-oriented

wearable cameras

*UbiComp* 

2018 I can't be myself: Effects of wearable cameras on the capture of authentic behavior in the wild

**UbiComp** 

2017 \* Will Participants Wear Passive Sensing Devices Long Enough to Study Eating Behavior?

Obesity week - eHealth/mHealth Section

**Best Poster Award** 

#### Services

	Student Volunteer	
2019– 2020	Northwestern Graduate Women in Computing (GWiC)  Co-Director	
2018	UbiComp Conference Student Volunteer	
— Reviewing		
2019 - *	ACM Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT) 2-3 reviews per year 2 x Special Recognitions for Outstanding Reviews	
2019-	ACM Conference on Human Factors in Computing Systems (CHI)  1-2 reviews per year	

NSF-funded workshop on Technology for Automated Capture of Diet

# References

2020

Available upon request