

2017– **Assistant Professor**  
College of Information Science and Technology  
Penn State University

## Education

2011–2017 **PhD, Information Science, Cornell University**  
Committee: Tanzeem Choudhury (chair), Geri Gay and Deborah Estrin  
Thesis: "Circadian Computing: Sensing and Stabilizing Biological Rhythms"

2011–2014 **Master of Science, Information Science, Cornell University**  
Advisor: Tanzeem Choudhury

2009–2011 **Master of Science, Computer Science, University of Vermont**  
Advisor: Xindong Wu  
GPA: 4.00

2003–2007 **Bachelor of Science, Computer Science & Engineering, Bangladesh University of Engineering & Technology**  
Advisors: Dr Monirul Islam and Shohrab Hossain  
Thesis: Evolution of Neural Network using Genetic Algorithm  
GPA: 3.79

## Awards

2016 **Best paper award in MobileHCI**  
For the paper: Mobile manifestations of alertness: Connecting biological rhythms with patterns of smartphone app use.

2016 **Agile research grant from Robert Wood Johnson Foundation**  
Our project focusing on circadian rhythms and cognitive performance was selected as one of the five recipients in the Agile Research Project competition.

2013 **\$100,000 Heritage Open mHealth Challenge Winner**  
Our MoodRhythm project focusing on Bipolar Disorder won Heritage Open mHealth Challenge co-sponsored by Heritage Provider Network, Open mHealth, and the University of California, Los Angeles.

## Publications

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### JOURNAL ARTICLES


2016 J05 **Development and evaluation of a smartphone-based measure of social rhythms for bipolar disorder**  
Mark Matthews, *Saeed Abdullah*, Geri Gay, and Tanzeem Choudhury.

Assessment (ASM), 23(4), 472–483.

- 2016 J04 **Semi-automated tracking: a balanced approach for self-monitoring applications**  
Eun Kyoung Choe, *Saeed Abdullah*, Mashfiqui Rabbi, Edison Thomaz, Daniel A. Epstein, Matthew Kay, Felicia Cordeiro, Gregory D. Abowd, Tanzeem Choudhury, James Fogarty, Bongshin Lee, Mark Matthews, and Julie A. Kientz.  
IEEE Pervasive Computing (in press).
- 2015 J03 **Automatic detection of social rhythms in bipolar disorder**  
*Saeed Abdullah*, Mark Matthews, Ellen Frank, Gavin Doherty, Geri Gay, and Tanzeem Choudhury.  
Journal of the American Medical Informatics Association (JAMIA), 23(3), 538–543.
- J02 **Mobile behavioral sensing for outpatients and inpatients with schizophrenia.**  
Dror Ben-Zeev, Rui Wang, *Saeed Abdullah*, Rachel Brian, Emily Scherer, Lisa Mistler, Marta Hauser, John Kane, Andrew Campbell, and Tanzeem Choudhury.  
Psychiatric Services, 67(5), 558–561.
- 2014 J01 **Tracking mental well-being: balancing rich sensing and patient needs**  
Mark Matthews, *Saeed Abdullah*, Geri Gay, and Tanzeem Choudhury.  
IEEE Computer, 47(4), 36–43

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CONFERENCE PAPERS

- 2016 C14 **Cognitive rhythms: Unobtrusive and continuous sensing of alertness using a mobile phone**  
*Saeed Abdullah*, Elizabeth Murnane, Mark Matthews, Matthew Kay, Julie Kientz, Geri Gay, and Tanzeem Choudhury.  
UbiComp: Conference on Pervasive and Ubiquitous Computing.  
Acceptance rate: 23%
- C13 **Shining (blue) light on creative ability**  
*Saeed Abdullah*, Mary Czerwinski, Gloria Mark, and Paul Johns.  
UbiComp: Conference on Pervasive and Ubiquitous Computing.  
Acceptance rate: 23%
- C12 **CrossCheck: Toward passive sensing and detection of mental health changes in people with schizophrenia**  
Rui Wang, Min S.H. Aung, *Saeed Abdullah*, Dror Ben-Zeev, Rachel Brian, Andrew T Campbell, Tanzeem Choudhury, Marta Hauser, John Kane, Michael Merrill, Emily Scherer, and Vincent Wen-Sheng Tseng.  
UbiComp: Conference on Pervasive and Ubiquitous Computing.  
Acceptance rate: 23%
-  C11 **Mobile manifestations of alertness: Connecting biological rhythms with patterns of smartphone app use**  
Elizabeth Murnane, *Saeed Abdullah*, Mark Matthews, Matthew Kay, Julie Kientz, Geri Gay, Tanzeem Choudhury, Dan Cosley.

- MobileHCI: Conference on human-computer interaction with mobile devices and services  
 Acceptance rate: 23.5%.  
**Best paper award (top 2 papers)**
- 2016 C10 **Detecting and capitalizing on physiological dimensions of psychiatric illness**  
 Mark Matthews, *Saeed Abdullah*, Geri Gay, and Tanzeem Choudhury.  
 PhyCS: Conference on Physiological Computing Systems
- 2015 C09 **Social (media) jet lag: How usage of social technology can modulate and reflect circadian rhythms**  
 Elizabeth L. Murnane, *Saeed Abdullah*, Mark Matthews, Tanzeem Choudhury, and Geri Gay.  
 UbiComp: Conference on Pervasive and Ubiquitous Computing.  
 Acceptance rate: 23%
- C08 **In-situ design for mental illness: considering the pathology of bipolar disorder in mhealth design**  
 Mark Matthews, Stephen Volda, *Saeed Abdullah*, Gavin Doherty, Tanzeem Choudhury, Sangha Im, and Geri Gay.  
 MobileHCI: Conference on human-computer interaction with mobile devices and services  
 Acceptance rate: 27%
- C07 **Collective smile: measuring societal happiness from geolocated images**  
*Saeed Abdullah*, Elizabeth L. Murnane, Jean MR Costa, and Tanzeem Choudhury.  
 CSCW: Conference on Computer Supported Cooperative Work & Social Computing  
 Acceptance rate: 28%
- C06 **MoodLight: exploring personal and social implications of ambient display of biosensor data**  
 Jaime Snyder, Mark Matthews, Jacqueline Chien, Pamara F. Chang, Emily Sun, *Saeed Abdullah*, and Geri Gay.  
 CSCW: Conference on Computer Supported Cooperative Work & Social Computing  
 Acceptance rate: 28%
- 2014 C05 **Towards circadian computing: early to bed and early to rise makes some of us unhealthy and sleep deprived**  
*Saeed Abdullah*, Mark Matthews, Elizabeth L. Murnane, Geri Gay, and Tanzeem Choudhury.  
 UbiComp: Conference on Pervasive and Ubiquitous Computing.  
 Acceptance rate: 20%
- 2012 C04 **Towards population scale activity recognition: a scalable framework for handling data diversity**  
*Saeed Abdullah*, Nicholas Lane, and Tanzeem Choudhury.

AAAI: Conference on advancement of artificial intelligence  
Acceptance rate: 26%

2011 C03 **An epidemic model for news spreading on twitter**  
*Saeed Abdullah*, and Xindong Wu.  
ICTAI: Conference on tools with artificial intelligence  
Acceptance rate: 23%

2009 C02 **Evolving multilayer neural networks using permutation free encoding technique**  
Anupam Das and *Saeed Abdullah*.  
ICAI: Conference on artificial intelligence  
Acceptance rate: 23%

2008 C01 **Permutation free encoding technique for evolving Neural networks**  
Anupam Das, Md. Shohrab Hossain, *Saeed Abdullah*, and Rashed Ul Islam.  
ISSN: Symposium on neural networks  
Acceptance rate: 23%

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**BOOK CHAPTER**

2017 B01 **Circadian Computing: Sensing, Modeling, and Maintaining Biological Rhythms**  
*Saeed Abdullah*, Elizabeth L. Murnane, Mark Matthews, and Tanzeem Choudhury  
Mobile Health: Sensors, Analytic Methods, and Applications edited by Jim Rehg, Susan Murphy, and Santosh Kumar.  
Springer International Publishing

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**WORKSHOP PAPERS AND ABSTRACTS**

2016 W04 **Assessing mental health issues on college campuses: preliminary findings from a pilot study**  
Vincent Wen-Sheng Tseng, *Saeed Abdullah*, Michael Merrill, Min Aung, Franziska Wittleder, and Tanzeem Choudhury.  
UbiComp workshop on mental health

2015 W03 **Towards circadian computing: a sensing & intervention framework for body clock friendly technology**  
*Saeed Abdullah*.  
UbiComp Doctoral Colloquium

2013 W02 **Light, Color, Affect, and Stress**  
Jaime Snyder, Mark Matthews, *Saeed Abdullah*, Yohan Ko, and Geri Gay.  
4S: Society for Social Studies of Science

W01 **Clockwise: inferring chronotype and daily patterns from smartphone use**  
*Saeed Abdullah*.  
UbiComp Doctoral Colloquium

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## POSTERS AND DEMOS

- 2015 P07 **Automatic detection of social rhythms in bipolar disorder via smartphone**  
Ellen Frank, *Saeed Abdullah*, Mark Matthews, and Tanzeem Choudhury.  
American College of Neuropsychopharmacology (ACNP)
- 2015 P06 **SAINT: A Scalable Sensing and Inference Toolkit**  
Mashfiqui Rabbi, Thiago Caetano, Jean Costa, *Saeed Abdullah*, Mi Zhang, and  
Tanzeem Choudhury.  
Workshop on Mobile Computing Systems and Applications (ACM HotMobile)
- 2014 P05 **Towards circadian computing: “early to bed and early to rise” makes some of  
us unhealthy and sleep deprived**  
*Saeed Abdullah*, Mark Matthews, Elizabeth L. Murnane, Geri Gay, and Tanzeem  
Choudhury.  
Intel Science and Technology Center for Pervasive Computing (ISTC-PC)
- P04 **Circadian computing: towards bodyclock friendly technology**  
*Saeed Abdullah*.  
HCIC: Human Computer Interaction Consortium Workshop
- 2013 P03 **Developing a smartphone app to monitor mood, social rhythms, sleep and  
social activity: technology to support effective management of bipolar disorder**  
Ellen Frank, Mark Matthews, Tanzeem Choudhury, Steve Volda, and *Saeed  
Abdullah*.  
American College of Neuropsychopharmacology (ACNP)
- P02 **MoodRhythm: tracking and supporting daily rhythms**  
Stephen Volda, Mark Matthews, *Saeed Abdullah*, Mengxi Chrissie Xi, Matthew  
Green, Won Jun Jang, Donald Hu, John Weinrich, Prashama Patil, Mashfiqui  
Rabbi, Tauhidur Rahman, Geri Gay, Ellen Frank, and Tanzeem Choudhury.  
Interactive demo in UbiComp
- 2012 P01 **Towards population scale activity recognition: a framework for handling data  
diversity**  
*Saeed Abdullah*, Nicholas D. Lane, and Tanzeem Choudhury.  
Intel Science and Technology Center for Pervasive Computing (ISTC-PC)

## Invited talks

- 2016 **Health Data Exploration Project Agile Grant Series**  
Title: Passive sensing of circadian rhythms for individualized models of cognitive  
performance
- 2015 **Intel Science & Technology Center for Pervasive Computing (ISTC-PC)**  
Title: Cognitive rhythms: unobtrusive and continuous sensing of alertness using a  
mobile phone

- 2014 **MIT & Cornell hacking-medicine hackathon**  
Title: Supporting individuals with bipolar disorder to establish stable daily routines

## Professional experience

- 2014–2017 **Graduate research assistant at Cornell University**  
Funded by Intel Science & Technology Center for Pervasive Computing (ISTC-PC)  
Supervisor: Tanzeem Choudhury  
Exploring pervasive technology that supports our circadian rhythms
- 2012–2014 **Funded by Intelligence Advanced Research Projects Activity (IARPA)**  
Supervisor: Tanzeem Choudhury  
Novel image based large scale sentiment analysis from social media
- Fall, 2015 **Research intern, Microsoft Research Redmond**  
Supervisor: Mary Czerwinski  
Designed and developed novel system for improving creative ability
- 2011–2012 **Graduate teaching assistant at Cornell University**
- 2009–2011 **Graduate teaching assistant at University of Vermont**
- 2008–2009 **Software Developer, AfriGIS Ltd**  
Developing search engine with special focus on geographic relevance
- 2008 **Software Developer, Google Summer of Code**  
Enhancing a Just-In-Time (JIT) compiler for Java to provide instruction code selection and emission for array manipulation bytecodes.

## Teaching experience

- 2014–2016 **Info 4120/6120: Ubiquitous Computing, Cornell University**  
Instructor: Tanzeem Choudhury  
Guest lecture on circadian computing and lab session on mobile programming
- Spring, 2012 **CS/Info 2300: Intermediate design and programming for the web, Cornell University**  
Instructor: Carl Lagoze. Students: 120  
Led lab teaching sections, covered some lectures
- Fall, 2012 **CS 4300: Information retrieval, Cornell University**  
Instructor: Paul Ginsberg. Students: 122  
Tutored students, marked assignments and reports
- Spring, 2011 **CS 224: Algorithm Design & Analysis, University of Vermont**  
Instructor: Byung Lee  
Covered some lectures, tutored students, marked assignments

- Fall, 2010 **CS 32: Puzzles, Games and Algorithms, University of Vermont**  
Instructor: Robert Snapp  
Led lab sessions, marked assignments
  
- Fall, 2010 **CS 204: Database System, University of Vermont**  
Instructor: Byung Lee  
Covered some lectures, tutored students, marked assignments
  
- Spring, 2010 **CS 222: Computer Architecture, University of Vermont**  
Instructor: Alan Ling  
Tutored students, marked assignments
  
- Spring, 2010 **CS 195: Computer science for Geo-spatial technologies, University of Vermont**  
Instructor: Alison Pechenick  
Developed and marked assignments
  
- Fall, 2009 **CS 201: Operating Systems, University of Vermont**  
Instructor: Alan Ling  
Covered some lectures, tutored students, marked assignments
  
- Fall, 2009 **CS 243: Theory of Computation, University of Vermont**  
Instructor: Alan Ling  
Tutored students, marked assignments

## Service

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### WORKSHOP ORGANIZER

- 2016–2017 Mental health and well-being: sensing and intervention  
Workshop at UbiComp
  
- 2014 **Biological rhythms and technology**  
Mark Matthews, Erin Carroll, *Saeed Abdullah*, Jaime Snyder, Matthew Kay,  
Tanzeem Choudhury, Geri Gay, and Julie A. Kientz  
Workshop at CHI

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### STUDENT VOLUNTEER

- 2015 **UbiComp Program Committee Meeting**

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### PROGRAM COMMITTEE MEMBER

- 2017 **PervasiveHealth**
  
- 2015 **International Conference on Digital Health**

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### STUDENT REPRESENTATIVE AT CORNELL UNIVERSITY

2013–2015 **Faculty hiring committee**

2011–2012 **Computing facilities support**

2011–2013 **Colloquium organizer**

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**CONFERENCE REVIEWER**

2017 **UIST**

2014–2016 **UbiComp**

2014–2017 **CHI**

2016 **CSCW**

2015–2017 **PervasiveHealth**

2015 **International conference on digital health**

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**JOURNAL REVIEWER**

2017 **Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT)**

2016 **IEEE computer**

2016 **International journal of human-computer interaction**

2015 **Behavior research methods journal**

2013 **IEEE transactions on knowledge and data engineering**