Saeed Abdullah

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Education

2011–(2017)	**PhD, Information Science, Cornell University (ABD)** Committee: Tanzeem Choudhury (chair), Geri Gay and Deborah Estrin
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

Award

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

—— 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

———— 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 Voida, *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.
ISNN: Symposium on neural networks
Acceptance rate: 23% |

———— BOOK CHAPTER

| 2016 | 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 |

———— 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 |

———— 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 Voida, and *Saeed
Abdullah*.
American College of Neuropsychopharmacology (ACNP)

        P02   **MoodRhythm: tracking and supporting daily rhythms**
Stephen Voida, 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

2014–2016   **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

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

Fall, 2014   **Info 4120/6120: Ubiquitous Computing, Cornell University**
Instructor: Tanzeem Choudhury
Guest lecture on circadian computing

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

WORKSHOP ORGANIZER

2016 **Mental health and well-being: sensing and intervention**
Saeed Abdullah, Varun Mishra, Andrew T. Campbell, Gregory D. Abowd, and Tanzeem Choudhury.
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

STUDENT VOLUNTEER

2015 **UbiComp Program Committee Meeting**

PROGRAM COMMITTEE MEMBER

2015 **International Conference on Digital Health**

STUDENT REPRESENTATIVE AT CORNELL UNIVERSITY

2013–2015 **Faculty hiring committee**

2011–2012	Computing facilities support
2011–2013	Colloquium organizer

CONFERENCE REVIEWER

2014–2016	UbiComp
2014–2016	CHI
2016	CSCW
2015	PervasiveHealth
2015	International conference on digital health

JOURNAL REVIEWER

2016	IEEE computer
2016	International journal of human-computer interaction
2015	Behavior research methods journal
2013	IEEE transactions on knowledge and data engineering