SAEED ABDULLAH

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RESEARCH INTEREST

My work, on a broader scale, focuses on providing technology mediated care in the context of mental health. In this new model of care, the goal is to detect early warning signs and provide intervention even before the relapse happens — moving from reactive to preemptive care.

Towards that, I have designed, developed and deployed smartphone based sensing systems for Bipolar and Schizophrenic patients. I am also interested in enabling circadian stability in general population.

EDUCATION

	2011 – CORNELL UNIVERSITY, ITHACA, NY
PhD Student	Information Science Committee: Tanzeem Choudhury (Chair), Geri Gay and Deborah Estrin
	2011 – 2014 CORNELL UNIVERSITY, ITHACA, NY
Master of Science	Information Science GPA: 3.86 · Adviser: Tanzeem Choudhury
	2009 – 2011 UNIVERSITY OF VERMONT, BURLINGTON, VT
Master of Science	Computer Science GPA: 4.00 · Adviser: Xindong Wu Worked on modeling information diffusion on Twitter using mathematical epidemiology theories.
	2003 – 2007 BUET, DHAKA
Bachelor of Science	Bangladesh University of Engineering & Technology (BUET) Computer Science & Engineering GPA: 3.79 · Advisers: Dr Monirul Islam and Shohrab Hossain Thesis Topic: Evolution of Neural Network using Genetic Algorithm

WORK EXPERIENCE

	2012 – CORNELL UNIVERSITY
Graduate Researcher	Designing, developing and deploying smartphone based sensing systems in the context of mental health.
	2011 – 2012 CORNELL UNIVERSITY
Graduate Teaching Assistant	Teaching and grading for *CS4300: Information Retrieval* and *CS/INFO 2300: Intermediate Design and Programming for the Web*. Guest lecture on special topics for *INFO 4120/6120: Ubiquitous Computing*.
	2009 – 2011 UNIVERSITY OF VERMONT
Graduate Teaching Assistant	Teaching and grading for *CS 201: Operating Systems, CS 32: Puzzles, Games & Algorithms, CS 222: Computer Architecture, CS224: Algorithm Design and Analysis, CS 195: Computer Science for Geo-spatial Technologies, CS 204: Database Systems*

	2008 – 2009 AFRIGIS LTD, DHAKA, BANGLADESH
Software Developer	Developing search engine with special focus on geographic relevance for subscribers of Vodacom, South Africa.
	2008 Summer GOOGLE SUMMER OF CODE
Google Summer of Code	Worked on a Just-In-Time (JIT) compiler for Java to provide instruction selection and code emission for array manipulation bytecodes.

SERVICE

	2011 – CORNELL UNIVERSITY
Student Representative	Faculty Hiring Committee (2013 – Present) Computing Facilities Support (2011 – 2013) Colloquium Organizer (2011 – 2012)
Reviewer	CHI (2014 – 2015) UbiComp (2014 – 2015) PervasiveHealth, 2015 IEEE Transactions on Knowledge and Data Engineering Behavior Research Methods Journal
Organizer	PROGRAM COMMITTEE MEMBER 5th International Conference on Digital Health, 2015 WORKSHOP ORGANIZER Biological Rhythms and Technology, CHI, 2014

AWARDS

	2013 Summer $100,000 HERITAGE OPEN MHEALTH CHALLENGE
Heritage Open mHealth Challenge Winner	Our MoodRhythm project focusing on Bipolar patients won Heritage Open mHealth Challenge co-sponsored by Heritage Provider Network, Open mHealth, and the University of California, Los Angeles.

PRESENTATIONS

	2014 Summer ISTC-PC
ISTC-PC	Intel Science and Technology Center for Pervasive Computing (ISTC-PC) Presentation title: Towards Circadian Computing: "Early to Bed and Early to Rise" Makes Some of Us Unhealthy and Sleep Deprived
	2014 Summer HUMAN COMPUTER INTERACTION CONSORTIUM
HCIC	Human Computer Interaction Consortium (HCIC) *Boaster* title: Circadian computing: Towards bodyclock friendly technology
	2014 Spring MIT & CORNELL HACKING-MEDICINE HACKATHON
Health Hackathon hosted by WebMD	Selected to participate in MIT & Cornell Health focused Hackathon hosted by WebMD. Worked on Smartphone app that supports individuals with Bipolar Disorder to establish daily routine

ISTC-PC   Intel Science and Technology Center for Pervasive Computing (ISTC-PC)
Poster title: Towards Population Scale Activity Recognition: A Scalable
Framework for Handling Data Diversity

PUBLICATIONS

2015   <u>Saeed Abdullah</u>, Mark Matthews, Ellen Frank, Gavin Doherty, Geri Gay,
Tanzeem Choudhury. **Automatic detection of social rhythms in Bipolar
Disorder**. Journal of the American Medical Informatics Association. *In Press*.

Dror Ben-Zeev, Rui Wang, <u>Saeed Abdullah</u>, Rachel Brian, Emily Scherer, Lisa
Mistler, Marta Hauser, John Kane, Andrew Campbell, Tanzeem Choudhury.
**Mobile Behavioral Sensing in Outpatients and Inpatients with
Schizophrenia**. Psychiatric Services. *In Press*.

<u>Saeed Abdullah</u>. **Towards circadian computing: a sensing & intervention
framework for BodyClock friendly technology**. In Proceedings of the 2015
ACM International Joint Conference on Pervasive and Ubiquitous Computing
and Proceedings of the 2015 ACM International Symposium on Wearable
Computers, pp. 515-520. ACM, 2015.

Elizabeth L. Murnane, <u>Saeed Abdullah</u>, Mark Matthews, Tanzeem Choudhury,
and Geri Gay. **Social (media) jet lag: How usage of social technology can
modulate and reflect circadian rhythms**. In Proceedings of the 2015 ACM
International Joint Conference on Pervasive and Ubiquitous Computing, pp.
843-854. ACM, 2015.

Mark Matthews, Stephen Voida, <u>Saeed Abdullah</u>, Gavin Doherty, Tanzeem
Choudhury, Sangha Im, and Geri Gay. **In Situ Design for Mental Illness:
Considering the Pathology of Bipolar Disorder in mHealth Design**. In
Proceedings of the 17th International Conference on Human-Computer
Interaction with Mobile Devices and Services, pp. 86-97. ACM, 2015.

<u>Saeed Abdullah</u>, Elizabeth L. Murnane, Jean MR Costa, and Tanzeem
Choudhury. **Collective Smile: Measuring Societal Happiness from
Geolocated Images**. In Proceedings of the 18th ACM Conference on Computer
Supported Cooperative Work & Social Computing, pp. 361-374. ACM, 2015.

Jaime Snyder, Mark Matthews, Jacqueline Chien, Pamara F. Chang, Emily Sun,
<u>Saeed Abdullah</u>, and Geri Gay. **MoodLight: Exploring Personal and Social
Implications of Ambient Display of Biosensor Data**. In Proceedings of the
18th ACM Conference on Computer Supported Cooperative Work & Social
Computing, pp. 143-153. ACM, 2015.

2014   <u>Saeed Abdullah</u>, Mark Matthews, Elizabeth L. Murnane, Geri Gay, and
Tanzeem Choudhury. **Towards Circadian Computing: Early to Bed and Early
to Rise Makes Some of Us Unhealthy and Sleep Deprived**. The 2014 ACM
International Joint Conference on Pervasive and Ubiquitous Computing
(UbiComp 2014).

Mark Matthews, <u>Saeed Abdullah</u>, Geri Gay, and Tanzeem Choudhury.
Tracking Mental Well-Being: Balancing Rich Sensing and Patient Needs.
Computer, 47.4(2014). IEEE Computer Society.

2013   <u>Saeed Abdullah</u>. **Clockwise: Inferring Chronotype and Daily Patterns from
Smartphone Use**. Extended abstract presented in Doctoral School, UbiComp

2013.

Snyder, J., Matthew, M., <u>Saeed Abdullah</u>, Chien, J., Sun, E., Gay, G. **Light, Color, Affect, and Stress**. Annual Meeting of the Society for Social Studies of Science (4S), San Diego, CA, October 2013.

Frank. E, Matthews, M., Choudhury, T., Voida, S. & <u>Saeed Abdullah</u> **Developing a Smart Phone App to Monitor Mood, Social Rhythms, Sleep and Social Activity: Technology to Support Effective Management of Bipolar Disorder**. Accepted Poster to American College of Neuropsychopharmacology.

Voida, S., Matthews, M., <u>Saeed Abdullah</u>, Chi, M., Green, M., Jang, W.J., Hu, D., Weinrich, J., Patil, P., Rabbi, M., Rahman, T., Gay, G., Frank, E. & Choudhury, T. **MoodRhythm: Tracking and supporting daily rhythms**. Interactive demonstration presented UbiComp, 2013.

2012   <u>Saeed Abdullah</u>, Nicholas Lane, and Tanzeem Choudhury. **Towards Population Scale Activity Recognition: A Scalable Framework for Handling Data Diversity**. Appears in the Proceedings of AAAI 2012.

2011   <u>Saeed Abdullah</u>, and Xindong Wu. **An epidemic model for news spreading on twitter**. 23rd IEEE International Conference on Tools with Artificial Intelligence (ICTAI), 2011.

2009   Anupam Das and <u>Saeed Abdullah</u>. **Evolving Multilayer Neural Networks using Permutation free Encoding Technique**. In Proceedings of the 2009 International Conference on Artificial Intelligence (ICAI, 2009)

2008   Anupam Das, Md. Shohrab Hossain, <u>Saeed Abdullah</u>, and Rashed Ul Islam. **Permutation Free Encoding Technique for Evolving Neural Networks**. In Proceedings of the 5th international symposium on Neural Networks: Advances in Neural Networks (ISNN, 2008)