GetMobile

MOBILE COMPUTING & COMMUNICATIONS REVIEW

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MESSAGE FROM THE EDITOR-IN-CHIEF

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Eyal de Lara

IN THIS ISSUE, we highlight four papers from ACM UbiComp 2016.

"EmotionCheck: A Wearable Device to Regulate Anxiety through False Heart Rate Feedback," by Jean Costa, Alexander T. Adams, Malte F. Jung, François Guimbretière, and Tanzeem Choudhury, describes a device that generates subtle vibrations on the wrist to resemble a pulse, which helps users regulate their anxiety through false feedback of a slow heart rate.

In "HemaApp: Noninvasive Blood Screening of Hemoglobin Using Smartphone Cameras," Edward Jay Wang, William Li, Doug Hawkins, Terry Gernsheimer, Colette Norby-Slycord, and Shwetak N. Patel present a smartphone application that monitors the hemoglobin concentration in a patient's blood by using the smartphone's RGB camera and different light sources to illuminate the patient's fingertip.

In "Who are the Smartphone Users? Identifying User Groups with Apps Usage Behaviors," Sha Zhao, Julian Ramos, Jianrong Tao, Ziwen Jiang, Shijian Li, Zhaohui Wu, Gang Pan, and Anind K. Dey report on their efforts using unsupervised learning methods to cluster Android users into distinct types of user groups based on app usage behaviors. They also semantically label each user group with meaningful tags, such as Screen Checkers and Young Parents.

Lastly, "Interpretable Machine Learning for Mobile Notification Management: An Overview of PrefMiner," by Abhinav Mehrotra, Robert Hendley, and Mirco Musolesi, describes a notification management solution that automatically learns the types of information that users prefer to receive via notifications in different situations.

The rest of the issue consists of three more columns:

The Experimental Methods column features an article by Matthew Kay, Shwetak N. Patel, and Julie A. Kientz that describes a method that developers of mobile sensing applications can use to determine the degree of accuracy that a new application requires.

In the Mobile Platforms column, Eduardo Cuervo provides an overview of head-mounted display technology and discusses open research challenges in wireless networking, computation offloading, energy management, and security and privacy.

Finally, the (Almost) Unpublishable Results column features an article by Zerina Kapetanovic, Deepak Vasisht, Jongho Won, Ranveer Chandra, and Mark Kimball that reports on their experiences developing and deploying an always-on connected IoT system for agriculture, which collects data from various sensors, cameras, and drones to produce actionable insights for the farmer.

I hope you enjoy this issue, and I welcome your thoughts about GetMobile in general, and this issue in particular.

Editorial Board Changes

Khai N. Truong and Sharad Agarwal are stepping down from the editorial board. As founding editors of the Experimental Methods and Mobile Platforms columns, Khai and Sharad have been instrumental to GetMobile's continued success, and I sincerely thank them for the many high-quality columns that they have authored and guided.

It is with great pleasure that I extend a warm welcome to the GetMobile editorial board to Julie A. Kientz and Ardalan Amiri Sani. Julie is taking over the Experimental Methods column, while Ardalan joins Marco Gruteser as co-editor of the Mobile Platforms column.



Julie A. Kientz is an Associate Professor in the department of Human Centered Design & Engineering at the University of Washington. She directs the Computing for Healthy Living and Learning Lab, is active in the Design, Use, Build (DUB) alliance, and has adjunct appointments in The Information School and Computer Science & Engineering. Kientz's primary research areas are in the fields of human-computer interaction, ubiquitous computing, and health informatics. Her research focuses on understanding and reducing the user burdens of interactive technologies for health and education through the design of future applications. Kientz received her Ph.D. in Computer Science from the Georgia Institute of Technology in 2008. She was awarded a National Science Foundation CAREER Award in 2009, named an MIT Technology Review Innovator Under 35 in 2013, and she is the recipient of the UW College of Engineering Faculty Research Innovator award in 2014.



Ardalan Amiri Sani is an Assistant Professor in the Computer Science Department at the University of California, Irvine. His research interests include mobile computing, operating systems, and system security and privacy. He obtained his B.S. from Sharif University of Technology in 2008 and his M.S. and Ph.D. from Rice University in 2011 and 2015, respectively. Ardalan received the ACM MobiSys Best Paper Award in 2014.

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