

2018 IEEE Symposium on Privacy-Aware Computing (PAC 2018)

**Washington, DC, USA
26-28 September 2018**



**IEEE Catalog Number: CFP18K14-POD
ISBN: 978-1-5386-8443-6**

**Copyright © 2018 by the Institute of Electrical and Electronics Engineers, Inc.
All Rights Reserved**

Copyright and Reprint Permissions: Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limit of U.S. copyright law for private use of patrons those articles in this volume that carry a code at the bottom of the first page, provided the per-copy fee indicated in the code is paid through Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923.

For other copying, reprint or republication permission, write to IEEE Copyrights Manager, IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854. All rights reserved.

****** This is a print representation of what appears in the IEEE Digital Library. Some format issues inherent in the e-media version may also appear in this print version.***

| | |
|-------------------------|-------------------|
| IEEE Catalog Number: | CFP18K14-POD |
| ISBN (Print-On-Demand): | 978-1-5386-8443-6 |
| ISBN (Online): | 978-1-5386-8442-9 |

Additional Copies of This Publication Are Available From:

Curran Associates, Inc
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: (845) 758-0400
Fax: (845) 758-2633
E-mail: curran@proceedings.com
Web: www.proceedings.com

CURRAN ASSOCIATES INC.
proceedings
.com

2018 IEEE Symposium on Privacy-Aware Computing **PAC 2018**

Table of Contents

| | |
|---|--|
| Message from the PAC 2018 Chairs .viii..... | |
| PAC 2018 Organizing Committee .ix..... | |

Research Session 1

| | |
|---|--|
| Privacy, Polarization, and Passage of Divisive Laws .1..... | |
| <i>Benjamin Johnson (Technical University of Munich) and Paul Laskowski (University of California, Berkeley)</i> | |
| PhotoSafer: Content-Based and Context-Aware Private Photo Protection for Smartphones .10..... | |
| <i>Ang Li (University of Arkansas), David Darling (University of Arkansas), and Qinghua Li (University of Arkansas)</i> | |

Research Session 2

| | |
|--|--|
| Epsilon Voting: Mechanism Design for Parameter Selection in Differential Privacy .19..... | |
| <i>Nitin Kohli (UC Berkeley School of Information) and Paul Laskowski (UC Berkeley School of Information)</i> | |
| The Potential for User-Tailored Privacy on Facebook .31..... | |
| <i>Moses Namara (Clemson University), Henry Sloan (Nyack High School), Priyanka Jaiswal (Clemson University), and Bart P. Knijnenburg (Clemson University)</i> | |

Research Session 3

| | |
|---|--|
| BigBing: Privacy-Preserving Cloud-Based Malware Classification Service .43..... | |
| <i>Yunus Kucuk (Binghamton University, State University of New York), Nikhil Patil (Binghamton University, State University of New York), Zhan Shu (Binghamton University, State University of New York), and Guanhua Yan (Binghamton University, State University of New York)</i> | |
| Efficient Privacy-Preserving Outsourcing of Large-Scale Geometric Programming .55..... | |
| <i>Wei Bao (University of Arkansas) and Qinghua Li (University of Arkansas)</i> | |

Research Session 4

- Informational Privacy, A Right to Explanation, and Interpretable AI .64.....
Tae Wan Kim (Carnegie Mellon University) and Bryan R. Routledge (Carnegie Mellon University)
- Privacy-Preserving Data Collection in Context-Aware Applications .75.....
Wei Li (Georgia State University), Chunqiang Hu (Chongqing University), Tianyi Song (Bowling Green State University), Jiguo Yu (Qufu Normal University), Xiaoshuang Xing (Changshu Institute of Technology), and Zhipeng Cai (Georgia State University)
- Deriving Privacy Settings for Location Sharing: Are Context Factors Always the Best Choice? .86.....
Frederic Raber (DFKI, Saarland Informatics Campus) and Antonio Krüger (DFKI, Saarland Informatics Campus)

Research Session 5

- Privacy Enabled Crowdsourced Transmitter Localization Using Adjusted Measurements .95.....
Harsimran Singh (University of Utah), Shamik Sarkar (University of Utah), Anuj Dimri (University of Utah), Aditya Bhaskara (University of Utah), Neal Patwari (University of Utah), Sneha Kasera (University of Utah), Samuel Ramirez (Idaho National Labs), and Kurt Derr (Idaho National Labs)
- A Cloud-Based Secure and Privacy-Preserving Clustering Analysis of Infectious Disease .107.....
Jianqing Liu (University of Alabama in Huntsville), Yaodan Hu (University of Florida), Hao Yue (San Francisco State University), Yanmin Gong (Oklahoma State University), and Yuguang Fang (University of Florida)

Poster Papers

- Privacy-Preserving POI Recommendation Using Nonnegative Matrix Factorization .117.....
Xiwei Wang (Northeastern Illinois University), Hao Yang (Yancheng Teachers University), and Kiho Lim (University of South Dakota)
- A Reputation Management Framework for MANETs .119.....
Shi-wen Wang (Qingdao University) and Hui Xia (Qingdao University)
- Malware Variants Detection Using Behavior Destructive Features .121.....
Yongle Chen (Taiyuan University of Technology), Bingchu Jin (Taiyuan University of Technology), Dan Yu (Taiyuan University of Technology), and Junjie Chen (Taiyuan University of Technology)
- Backward Thinking of Routing with High Uncertainties: Causal Entropy Based Routing in Multi-Agent Networks .123.....
Zhonghu Xu (University of Science and Technology of China), Kai Xing (University of Science and Technology of China), Xuefeng Liu (Huazhong University of Science and Technology), and Jiannong Cao (The Hong Kong Polytechnic University)

| | |
|---|--|
| Privacy Preserving Scheme for Location Based Services Using Cryptographic Approach .125..... | |
| <i>Yuwen Pu (Chongqing University), Jin Luo (Chongqing University), Ying Wang (Chongqing University), Chunqiang Hu (Chongqing University), Yan Huo (Beijing Jiaotong University), and Jiong Zhang (Ningbo Branch of Agricultural Bank of China)</i> | |
| Author Index .127..... | |