Contents

Information Retrieval and Data Analytics for Electronic Medical Records

Vector Space Models for Encoding and Retrieving Longitudinal Medical Record Data ................................................................. 3
Haider Syed and Amar K. Das

The Study of the Compatibility Rules of Traditional Chinese Medicine Based on Apriori and HMETIS Hypergraph Partitioning Algorithm .......... 16
Miao Wang, Jiayun Li, Li Chen, Yanjun Huang, Qiang Zhou, Lijuan Che, and Huiliang Shang

Comparing Small Graph Retrieval Performance for Ontology Concepts in Medical Texts .............................................................. 32
Daniel R. Schlegel, Jonathan P. Bona, and Peter L. Elkin

Data Management and Visualization of Medical Data

Maps of Human Disease: A Web-Based Framework for the Visualization of Human Disease Comorbidity and Clinical Profile Overlay ........... 47
Naiyun Zhou, Joel Saltz, and Klaus Mueller

Secure Similarity Queries: Enabling Precision Medicine with Privacy ...... 61
Jinfei Liu and Li Xiong

Time-, Energy-, and Monetary Cost-Aware Cache Design for a Mobile-Cloud Database System ...................................................... 71
Mikael Perrin, Jonathan Mullen, Florian Helff, Le Gruenwald, and Laurent d’Orazio

Biomedical Data Sharing and Integration

BiobankCloud: A Platform for the Secure Storage, Sharing, and Processing of Large Biomedical Data Sets ........................................... 89
Medical Imaging Analytics

Three-Dimensional Data Analytics for Pathology Imaging . . . . . . . . . . . . . . 109
  Yanhui Liang, Jun Kong, Yangyang Zhu, and Fusheng Wang

Automated Analysis of Muscle X-ray Diffraction Imaging with MCMC. . . . 126
  C. David Williams, Magdalena Balazinska, and Thomas L. Daniel

SparkGIS: Efficient Comparison and Evaluation of Algorithm Results
  in Tissue Image Analysis Studies . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 134
  Furgan Baig, Mudit Mehrotra, Hoang Vo, Fusheng Wang, Joel Saltz,
  and Tahsin Kurc

Big-Graphs Online Querying

Social Network Analytics: Beyond the Obvious . . . . . . . . . . . . . . . . . . . . . 149
  Laks V.S. Lakshmanan

S2X: Graph-Parallel Querying of RDF with GraphX . . . . . . . . . . . . . . . . . . 155
  Alexander Schätzle, Martin Przyjaciel-Zablocki, Thorsten Berberich,
  and Georg Lausen

The Time Has Come: Traversal and Reachability in Time-Varying Graphs. . . 169
  Max Wildemann, Michael Rudolf, and Marcus Paradies

Robust Cardinality Estimation for Subgraph Isomorphism Queries
  on Property Graphs . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 184
  Marcus Paradies, Elena Vasilyeva, Adrian Mocan,
  and Wolfgang Lehner

Author Index . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 199
Biomedical Data Management and Graph Online Querying
VLDB 2015 Workshops, Big-O(Q) and DMAH, Waikoloa, HI, USA, August 31 - September 4, 2015, Revised Selected Papers
Wang, F.; Luo, G.; Weng, C.; Khan, A.; Mitra, P.; Yu, C. (Eds.)
2016, XIV, 199 p. 73 illus., Softcover
ISBN: 978-3-319-41575-8