EDITORIAL

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Special Issue of DASFAA 2018

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We are pleased to present a special issue of Data Science and Engineering (DSE), which contains a collection of five extended papers from the DASFAA 2018 conference. Besides these five papers, this DSE issue also has one invited paper.

DASFAA 2018 is the 23rd International Conference on Database Systems for Advanced Applications. DASFAA is an annual international database conference, which provides a forum for technical presentations and discussions among database researchers, developers, and users from academia, business, and industry. This year the dominant topics for the selected papers included learning models, graph and network data processing, and social network analysis, followed by text and data mining, recommendation, data quality and crowd sourcing, and trajectory and stream data. Selected papers also included topics relating to network embedding, sequence and temporal data processing, RDF and knowledge graphs, security and privacy, medical data mining, query processing and optimization, search and information retrieval, multimedia data processing, and distributed computing.

The 2018 edition of DASFAA was held in Gold Coast, Australia, and attracted a total of 360 research paper submissions, spanning over numerous active and emerging topic areas. The conference program committee selected 83 full research papers and 21 short papers, six industry papers, and eight demo papers to be presented at the conference and published in the conference proceedings [1, 2]. The conference program also included keynote presentations by Dr. C. Mohan (IBM Almaden Research Center, San Jose, USA),

Prof. Xuemin Lin (UNSW, Sydney, Australia), and Prof. Yongsheng Gao (Griffith University, Brisbane, Australia).

The five extended papers for this special issue were selected from among all the accepted papers by the special issue guest editors Shazia Sadiq and Jianxin Li, based on the relevance to the journal and the reviews of the conference version of the papers. The authors were asked to revise the conference paper for journal publication and in accordance with customary practice to add 30% new materials. The revised papers again went through two rounds of the review process in accordance with DSE guidelines and are finally presented to the readers in the present form.

The five extended papers in this special issue cover a variety of topics relating to data science and engineering. In the first paper, "K-Connected Cores Computation in Large Dual Networks," authors introduce the concept of k-connected core model in dual network and develop efficient algorithms to compute the maximum-connected cores in large scale network data. The second paper, "Learning Discrete Hashing towards Efficient Fashion Recommendation," studies the fashion recommendation problem by learning the meaningful yet compact high level features of clothing items. In "Collusion-Resistant Processing of SQL Range Predicates," authors develop a new encryption scheme to range query processing without materially compromising on data security. The paper "Fact Checking in Knowledge Graphs with Ontological Subgraph Patterns," proposes a unified model for multiple consequent triple patterns for fact checking by graph pattern matching with ontology closeness. Finally, in "Evolutionary Active Constrained Clustering for Obstructive Sleep Apnea Analysis," authors present a novel interactive framework to handle both instance-level and temporal smoothness constraints for clustering large longitudinal data and for tracking the cluster evolutions over time. From the five (extended) papers, we observe that the DASFAA community is actively engaged in several emerging topics in data science and engineering. In addition to these five papers, this DSE special issue also has one invited paper "Approximate Query Processing: What is New and Where to Go? A Survey

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on Approximate Query Processing." We hope that the readers enjoy this special issue.

We would like to acknowledge the work done by all authors and their willingness to contribute their papers for this special issue. We thank all the reviewers for their expert comments and assistance in timely reviews. Finally, a note of thanks to DSE editors Sean Wang and Elisa Bertino for their guidance and support in this process.

References

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