Editorial Preface

Quality Assurance for SOA Based Systems

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This regular issue of the International Journal of Web Services Research (JWSR) collects four papers.

In the first paper, “Fault Prediction in SOA-Based Systems Using Deep Learning Techniques,” Bhandari et al. focus on the delivery of quality of service to customers. In their work, they applied deep learning techniques to predict the faults of SOA-based systems by analyzing Web services and calculating relevant metrics. Experimental output validates that the proposed model can overcome existing difficulties in fault prediction.

In the second paper, “A Value-Driven Modeling Approach for Crossover Services,” Liu et al. focus on the requirements modeling for crossover services, a new type of services in the modern service industry. They proposed a value-driven meta-model framework from multiple viewpoints to support the requirements analysis of crossover services. A case study and a controlled experiment showed the usability of the proposed approach.

The third paper is titled “Microblog Sentiment Analysis Using User Similarity and Interaction-Based Social Relations.” Mi et al. focus on microblog sentiment analysis for social networks. They proposed a novel method, MSA-USSR, by combining user similarity and interaction-based social relations to build sentiment relationships between microblogging data. Experimental results show that the proposed method has a better sentiment classification accuracy and F1-score than the content-based Support Vector Machine.

The fourth paper is titled “A Novel Approach to Location-aware Scheduling of Workflows Over Edge Computing Resources.” Li et al. aim to tackle the challenge of reducing monetary cost of executing workflows upon edge computing infrastructures by presenting a novel approach to location-aware and proximity-constrained multi-workflow scheduling. The proposed approach leverages an evolutionary algorithm and is capable of minimizing monetary costs with user-required workflow completion deadlines.

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Liang-Jie (LJ) Zhang received his Ph.D. on Pattern Recognition and Intelligent Control from Tsinghua University. Currently, he is the Chief Technology Officer (CTO) and Senior Vice President of Kingdee International Software Group Company Limited. Dr. Zhang has published more than 160 technical papers in journals, book chapters, and conference proceedings. He has 50 granted patents. He was elected as an IEEE Fellow in 2011, and in the same year won the Technical Achievement Award “for pioneering contributions to Application Design Techniques in Services Computing” from IEEE Computer Society. He has served as the President of Shenzhen Big Data Alliance since 2013. Dr. Zhang is the Editor-in-Chief of the International Journal of Web Services Research (IJWSR).