

Guest Editorial: **Special Issue on “Advance in Mobile Edge Computing”**

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Cloud computing has a problem for communication-intensive applications, which need to meet the delay requirements. The problem becomes more intense with the huge application of the Internet of Things. Mobile Edge Computing processes data at the nearest available nodes and is emerging as a promising computation architecture to handle ever-increasing demands. In this special issue, we selected five papers from ChinaCom 2020 in their extended versions and public call for papers. A summary of these papers is outlined below.

In the article titled “Enhancing Machine Comprehension Using Multi-Knowledge Bases and Offline Answer Span Improving System” by Xu, et al., they present a rich knowledge-enhanced reader (RKE-Reader), which is a hierarchical machine reading comprehension (MRC) model and employs double knowledge bases with a name recognition (NER) system as its knowledge enhancement unit. The scale is larger than any published MRC models with knowledge.

In the article titled “A Fast Response Multi-Objective Matching Algorithm for Ridesharing” by Sun, et al., they propose a fast and efficient multi-objective carpool matching algorithm (MOCMA) to solve the problem, which is that the existing carpool matching model cannot handle large-scale travel orders quickly enough. The proposed algorithm generates a set of different matching schemes suitable for different practical scenarios. The simulation experiment results show that the proposed MOCMA is suitable for different practical scenarios.

In the article titled “Service Process Improvement based on Business Process Management” by Wang, et al., they propose a method named Diff-BPI to automatically improve a service process, reducing execution cost and guaranteeing consumers' waiting/process time. The Diff-BPI method can construct an improved service process with a lower cost than the existing two versions and save running time for improving a service process using the filter strategy when the number of differences between the two versions is more than three.

In the article titled “KFPA Monocular Ranging algorithm design and application in mobile edge computing” by Chen, et al., they propose a monocular vision ranging method based on pixel area and aspect ratio to improve the accuracy of monocular vision

ranging. The proposed method improves the stability of real-time target detection by introducing Kalman filter processing. They also realize the Robot Operating System (ROS) smart car with real-time target tracking by the method based on the combination of SIFT-KCF target detection and tracking and monocular ranging.

In the article titled “GRUIFI: A Group Recommendation Model Covering User Importance and Feature Interaction” by Zhang, et al., they propose a Group Recommendation model covering User Importance and automatic Feature Interaction (GRUIFI), which can model interaction data of group member and learn group potential preference representation. They use an attention mechanism to obtain the weights of group members that represent user importance and a neural network that combines the multi-head attention to automatically learn fine-grained interactions between groups and items, and further capture the interdependency between group members.

The Guest Editors would like to express their deep gratitude to all the authors who have submitted their valuable contributions, and to the numerous and highly qualified anonymous reviewers. We think that the selected contributions, which represent the current state of the art in the field, will be of great interest to the community. We also would like to thank the JIT publication staff members for their continuous support and dedication. We particularly appreciate the relentless support and encouragement granted to us by Dr. Han-Chieh Chao, the Editor-in-Chief of the Journal of Internet Technology.

Guest Editors



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