

Editorial

Anna Rusznyak

Institute of Computer Vision and applied Computer Sciences, IBaI, Leipzig. Germany

This issue of the journal presents three interesting studies showing how data mining is infiltrating diverse areas of applications, making this study area increasingly important in computer science research.

The first study presents results in the field of communication. American Sign Language is the leading method of communication between the speech and hearing-impaired population. It involves the use of visual gestures and body movements as a means of expression. The authors approached to improve sign language recognition proposing system is a much more portable in the sense that the user is not restricted to a certain area for signing and it is far less invasive than the 3D depth sensor based technique as the signer is free to move around while signing (Fatmi, et al).

The second publication summarizes the results of a study illustrating the use of Single Item Single Period Newsvendor problem and Extreme Gradient Tree Boosting methods to simulate a case for increasing order thresholds and calculating the corresponding loss in order conversion. The team worked on the analysis of historical SPF data/price and discount trends/order conversions, identification of significant drivers of SPF order conversion, computation of expected quotes (demand) and expected conversion at the end of the period, to build a model to determine optimum deal size to qualify for an SPF transaction (Shekhar, et al.).

The third paper deals with machine learning algorithms. The researchers examined the performance of Apache Sparks machine learning library with reference to the optimal required resources observing the training time of classification algorithms. Their research revealed that having an excessive number of resources does not necessarily decrease the training time of the machine learning algorithms, Furthermore, this study confirmed that methodologies such as tree ensembles can increase the training time of machine learning algorithms compared to that of typical decision trees (Yasrobi et al.).

References

1. Fatmi R., Rashad S., Integlia R., Hutchison G.: American Sign Language Recognition using Hidden Markov Models and Wearable Motion Sensors. *Transactions on Machine Learning and Data Mining* 10(2), 41-55 (2017).
2. Shashank Shekhar S., Kaushik Shankar K., Sushanta Kumar Mishra S., Sam Pritchett S., Chitalia P.: Simulation based Approach for Special Discounting Threshold. *Transactions on Machine Learning and Data Mining* 10(2), 57-65 (2017).
3. Seyedfaraz Yasrobi S., Alston J., Yadranjiaghdam B., Tabrizi N.: Performance Analysis of Sparks Machine Learning Library. *Transactions on Machine Learning and Data Mining* 10(2), 67-77 (2017).