**Big Data Intelligence: Challenges and our Solutions**

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Abstract: Big Data Intelligence has become a hot research topic in the area of information science. This talk aims to outline the main challenges on Big Data Intelligence, e.g., data quality, data missing, few labeled data, multisource heterogeneous data. Then our solutions for Big Data Intelligence are provided, which cover the following aspects. 1) A hierarchical entropy-based approach is demonstrated to evaluate the effectiveness of data collection, the first step of Big Data Intelligence. 2) A multi-view-based method is illustrated for filling missing data, the preprocessing step for Big Data Intelligence. 3) A pairwise constraints (PCs) RBM with Gaussian visible units (pcGRBM) model is proposed to make full use of few labeled data. 4) A deep distributed fusion network is developed to deal with multisource heterogeneous data.