

## Deep learning for Big Surveillance Data

Big Data can be termed as the collection of huge and massive volumes of data from various sources differentiated as structured, semi structured and unstructured which are analyzed computationally to get a better insight of the data. These analyzed data can be used to help the analysts and business personals in making faster and better decisions. Big data has all the possibilities of changing the future with the huge amount of data it has in store. The main importance of big surveillance data is to take smart decision making with cost and time reduction.

Combining big surveillance data with analytical and intelligent analytical tools many unpredicted tasks can be accomplished like recalculating the overall risk of the organization, determining the failures and risks in advance, detecting the customer habit and behavior in real time basis and many more. Surveillance of huge amount of data can be linked with the certain important factors like security and governance. Even though big data has the capability of analyzing and predicting the outcomes in advance; certain issues may arise in the surveillance of data with respect to data security and personal privacy. Adopting advanced security measures ensuring the safety of privacy can lead the big surveillance data to many extends.

Deep learning has the capability to provide remarkable results in big surveillance data. It can also be used to extracting various patterns from complex information and data considering the huge volumes of data. Architectures like deep neural and deep belief network can be utilized in big surveillance data especially in the fields of speech, vision and image recognition processing, language processing bioinformatics etc. it serves as an advantage in analyzing the data and providing us with the in-depth solutions. It even has the ability to extract the information from unlabelled or unsupervised data in large volumes. So, implementing such deep learning algorithms, models and concepts in big surveillance data can enable us to identify the positive and negative aspects of the analysis. Further researches in the deep learning on big surveillance data may also project us towards the study of multi dimensionality, scalability, abstraction, distribution and proper adoption of multiple source information.

This special issue on “Deep learning for Big Surveillance Data” provides a multiple level deep learning medium to share innovative insights on the various aspects of data collection, processing, analyzing and retrieving of huge volumes of surveillance data. Topics of interest include but are not restricted to:

- Deep learning of applications in big data analytics
- Promises and challenges of big data analytics and deep learning techniques
- Recognition of surveillance images from labeled and unlabelled data using deep learning
- Big Data based unsupervised learning for audio classification using deep belief networks
- Recent methods for monitoring big surveillance data
- Deep learning on surveillance data for detection and prevention of disease outbreaks in healthcare
- Deep learning on automated data collection and processing of surveillance data
- Deep learning on advanced decision making based on the big public health surveillance data
- An improved deep learning architecture for identity identification using big surveillance data
- Deep learning for detecting and preventing privacy concerns in surveillance of big personal data
- Implementation of Discriminative deep metric learning in big surveillance data

- Deep learning tools for real-time forecasting of big surveillance data
- Deep learning for processing surveillance on big climate data
- Impact on privacy and security in collecting big surveillance data

### **Important dates**

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