Abstract

In the field of healthcare and medicine, several precautions should be taken by the healthcare professionals when prescribing drugs for patients. The side effects and effectiveness of drugs depends on the characteristics of patients such as age, gender, lifestyle and genetic profile. Existing techniques does not consider the side effects of drugs effectively with respect to the patient's personal medical profile. The goal is to provide a tool to assist the professionals and patients in finding and choosing the right drug using data mining technique. A hybrid approach is used which combines graph based approach and SVM algorithm to get even more effective drug Prediction. Graph based approach is used for disease prediction and as level 1 drug retrieval process and for further optimization we apply SVM Learning algorithm to predict the side effects association of the drug.

References

2. C. Knox et al., “Drugbank 3.0: “A comprehensive resource for omics research on drugs,”
Recommendations”.
7. K. Sangkuhl et al., “Pharmgkb: understanding the effects of individual genetic variants,”
9. Qian Zhu et al., “Exploring the pharmacogenomics knowledge base (PHARMGKB) for
repositioning breast
10. C. Doulaverakis et al., “Panacea, a semantic-enabled drug recommendations discovery
12. A. Ben Abacha and P. Zweigenbaum, “Medical question answering: translating medical
Information Networks Through Bounding Matching Scores”. ACM 978-1-4503-3469-3/15/05.,
WWW 2015, May 18–22, 2015, Florence, Italy.
14. J. Jin et al., “A distributed approach for top-k star queries on massive Information
15. A. Khan et al., “Neighborhood based fast graph search in large networks,” In SIGMOD
17. J. Sun, H. Xu, and Z. Zhao, “Network-assisted investigation of antipsychotic Drugs and
18. F. Cheng and Z. Zhao, “Machine learning-based prediction of drug–drug interactions by

Index Terms

- Computer Science
- Algorithms
Keywords

Graph based approach, SVM Learning Algorithm, Disease Prediction, Drug Prediction.