



Data Mining Tutorial

Type (1.5h)

First A. Proposer- Najah Al-shanableh

Biographical Sketch Najah Al-shanableh is a graduate student in New Mexico State University, she is doing interdisciplinary doctorate in computer science and nursing. Her main research interest is healthcare data mining and to find multiple chronic condition patterns in US.-Mexico border area. She also has conducted several data mining workshops in New Mexico State University. Find out more about Najah at <https://www.linkedin.com/in/najahsh>

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Theme (Tutorial)

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Abstract—

The growing use of computer technology in many areas of economic, scientific, healthcare and social life is resulting in massive digital data. These data could give more information and knowledge than that obtained from simple database inquiries. This is where Data Mining comes in. With Data Mining techniques, it is possible to "mine" data for "hidden" information and reveals unknown knowledge. The massive data sets generated by healthcare organizations are far more complex, extensive and numerous to be processed and analyzed by traditional methods. Data Mining provides the methodology and technology to move these comprehensive data into useful information for healthcare decision making.

Extraction of information is not the only process have to be to performed to reach knowledge; Data Mining also involves other preprocesses such as Data Cleaning, Data Integration, Data Transformation. Once all these processes are over, we would be able to apply Data Mining.

The tutorial discusses concepts and some Data Mining applications in healthcare as well as utilizing tools, tips, and best practices adapted from various organizations that applied Data Mining successfully. It also aims to offer a meeting opportunity for professors and students, belonging to the various communities of science and healthcare to discuss new areas of interdisciplinary research. Another important aim of the tutorial is to bridge the gap between data acquisition or experimentation and model building using Data Mining.

LIST of Speakers

A. Najah Al-shanableh, Student, najah@nmsu.edu

Remarks

1. Attract healthcare professionals who have access to interesting sources of data and problems but not the expertise in data mining to solve them effectively collaborating with data mining researchers.
2. Promote systematic steps of how to apply data mining to specific healthcare data sets.
3. Discuss problems and ideas about data analysis and data mining that researchers usually face.
4. Introduce attendees to some free data mining tools and best practice remarks in handling big data.

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