Health care predictive analytics using machine learning techniques

Dr Guanjin Wang

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COST: Free, please RSVP to k.wong@murdoch.edu.au

Abstract:

Advances in machine learning are opening the door for intelligent health care predictive analytics and decision support. However, traditional machine learning techniques are not always perfectly working in the health field, intrinsically due to little consideration for the characteristic problems within health data, such as insufficient data, missing data and class imbalances. In this talk, I will present a series of novel prediction models using customized machine learning techniques to tackle the above challenges and enhance the prediction performances. Moreover, this interdisciplinary research at machine learning and health predictive analytics is demonstrated using the real-world applications in cancer diagnosis and prognosis and elderly quality of life assessment. The promising future research directions and opportunities arisen from this topic will be further discussed.

About the speaker:

Guanjin Wang is currently a lecturer in Information Technology in Murdoch University. She received a joint PhD degree in software engineering from University of Technology Sydney and The Hong Kong Polytechnic University. Her main research interest lies in the areas of machine learning and health informatics, with a current focus on the development of advanced machine learning methods for health care predictive analytics.