Advanced Analytics Seminar Series on 11/11/2011

Title: Tripartite Theories, Protein Binding Hotspots, and H1N1 Mutations
Speaker: Associate Professor Jinyan Li, FEIT, UTS

Time & Location

Date: 11th November 2011 (Friday)
Time: 1:30pm to 3:00pm
Venue: Seminar Room CC05.GD.02, Building 5 of UTS Blackfriars Campus (5 minutes walk from Tower Building CB01 of UTS)
Street Address: 12 Blackfriars St, Chippendale, NSW 2008

Abstract: I will give an introduction to a tripartite graph model of protein binding sites. This protein-water-protein tripartite model is novel as immobilized water molecules are teamed in this graph model. I will also talk about how this model is used to predict where are protein binding hotspots in binding interfaces, and why the mutation of H1N1 2009 did not cause a bigger pandemic disaster than the Spanish Flu pandemic in 1918.

Short biography of speaker: Jinyan Li obtained his bachelor degree of science (applied mathematics, 1991) from National University of Defense Technology (China), his master degree of engineering (computer engineering, 1994) from Hebei University of Technology (China), and his PhD (computer science, 2001) from the University of Melbourne (Australia). He joined UTS in March of 2011 after ten years of fascinating research and teaching work in Singapore (Institute for Infocomm Research, Nanyang Technological University, and National University of Singapore). His return to Australia marks another milestone of his career life as he is operating on a wide spectrum of research topics at the Advanced Analytics Institute. Jinyan loves research on bioinformatics, computational biology, data mining, graph theory, information theory, machine learning, and theoretical biology. He has published 53 journal articles and 60 conference papers. These journals include: *Machine Learning*, *Artificial Intelligence*, *Data Mining and Knowledge Discovery*, *IEEE TKDE*, *Bioinformatics*, *Nucleic Acids Research* and *Cancer Cell*. Conference papers include those in KDD, ICML, PODS, ICDT, ICDE, ICDM and SDM. In addition, he edited 4 scholarly books, and published 10 book chapters and 4 patents. Jinyan is widely known for his pioneering and theoretical research work on emerging patterns that has spawned numerous follow-up research interests in data mining, machine learning, and bioinformatics and made an enduring contribution to the fields.

Overview to This Seminar Series

The Advanced Analytics Seminar Series is focused on the latest theoretical advancement and empirical practices of research, development, business and market in a broad range of interdisciplinary and business-oriented analytics fields. It covers

topics related to data mining, machine learning, statistics, bioinformatics, behavior informatics, marketing analytics and multimedia analytics. It also provides a platform for the showcase of commercial products in ubiquitous advanced analytics. Speakers are invited from both academia and industry.

It is opened regularly on every Friday afternoon at the garden-like UTS Blackfriars Campus. Each seminar is followed by a 30-minute afternoon tea, and then a open graduate study session teaching basic components in artificial intelligence, machine learning, data mining, business analytics and statistics.