

Keynote Speaker

Advances in Biomedical Text Mining

Jonathan H. Chan
Data Science and Engineering Laboratory (D-Lab)
School of Information Technology
King Mongkut's University of Technology Thonburi
Bangkok, Thailand
jonathan@sit.kmutt.ac.th

Abstract— Biomedical text mining, generally referred to as BioNLP, is the application of data mining and machine learning techniques to extract useful information and knowledge in the biomedical as well as molecular biology literature. As the number of biological and biomedical publications are increasing exponential in PubMed and other indices/repositories, it is paramount to develop better natural language processing (NLP) tools and techniques, especially in conjunction with biological resources. This talk will provide an overview on the development of BioNLP and some recent advances and applications in this field with an emphasis on data mining and machine learning.

BIOGRAPHY



Dr. Jonathan H. Chan is an Associate Professor at the School of Information Technology, King Mongkut's University of Technology Thonburi (KMUTT), Thailand. Jonathan holds a B.A.Sc., M.A.Sc., and Ph.D. degree from the University of Toronto and was a visiting professor there back in 2007, 2009 and 2016; he was also a visiting scientist at The Centre for Applied Genomics at Sick Kids Hospital in Toronto in several occasions. Dr. Chan is a member of the editorial board of *Neural Networks* (Elsevier), *Heliyon* (Elsevier), *International Journal of Machine*

Intelligence and Sensory Signal Processing (Inderscience), *International Journal of Swarm Intelligence* (Inderscience), and *Proceedings in Adaptation, Learning and Optimization* (Springer). Also, he is a reviewer for a number of refereed international journals including *Information Sciences*, *Applied Soft Computing*, *Neural Networks*, *BMC Bioinformatics*, and *Memetic Computing*. He has also served on the program, technical and/or advisory committees for numerous major international conferences. Dr. Chan has organized/co-organized many international conferences, and he is the Past-President of the former Asia Pacific Neural Network Assembly (APNNA) and a Governing Board member of the current Asia Pacific Neural Network Society (APNNS). He is a senior member of IEEE and INNS, and a member of ACM and the Professional Engineers of Ontario (PEO). His current research interests are in the interdisciplinary field of data science, including but not limited to intelligent systems, biomedical informatics, and systems biology.