



"GENERATING EFFECTIVE FEATURES FROM ELECTRONIC HEALTH RECORDS"

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Abstract: Data-Driven Healthcare (DDH) has aroused considerable interest from various research fields in recent years. Patient Electronic Health Records (EHR) are one of the major carriers for conducting DDH research. There are many challenges when working directly with EHR, such as sparsity, high-dimensionality, and temporality. In this talk, I will introduce my recent work on generating effective features for EHR including: 1) a grouping scheme for detecting useful feature groups; 2) a graph based approach for detecting aggregated temporal feature patterns; 3) a deep learning strategy for generating effective medical concepts. I will show various applications of these techniques including early prediction of the onset risk of chronic diseases and disease progression modeling.

Bio: Fei Wang is currently an associate professor at the Department of Computer Science and Engineering, University of Connecticut. He is also an affiliated faculty at the University of Connecticut Health Center. Before his current position, he worked at IBM T. J. Watson Research Center for 5 years. His major research interest is data analytics and its applications in biomedical informatics. He regularly publishes papers at top data mining conferences like KDD, ICDM and SDM, as well as medical informatics conferences like AMIA. His papers have received nearly 2,500 citations. He won best research paper nomination for ICDM 2010, and Marco Romani Best paper nomination in AMIA TBI 2014.

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**1:15 PM,
reception to
follow at 2:15**

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