Hua Xu, PhD, FACMI
Professor and Director, Center for Translational AI in Medicine
Associate Dean for Innovation, School of Biomedical Informatics

Natural Language Processing in Healthcare: Methods and Applications

Dr. Hua Xu is a Professor and Associate Dean for Innovation at the School of Biomedical Informatics in The University of Texas Health Science Center at Houston (UTHealth), as well as the director of Center for Translational AI in Medicine at UTHealth. He is an elected fellow of the American College of Medical Informatics. Dr. Xu received his Ph.D. in Biomedical Informatics from Columbia University. His primary research interests include biomedical natural language processing (NLP) and data mining, as well as their applications in secondary use of electronic health records data for clinical and translational research. His research is funded by multiple agencies (i.e., NLM, NCI, NIGMS, NIA, AHA, and CPRIT), and methods/tools developed in his lab have been top ranked in a number of biomedical NLP shared tasks and widely used to support diverse biomedical applications.

Abstract: Much of detailed patient information is embedded in narrative documents in Electronic Health Records (EHRs) systems, making it difficult to use in clinical research and practice. Natural language processing (NLP), which can automatically unlock information from textual documents, has received much attention in the medical domain. This presentation will introduce our recent development of clinical NLP methods and tools, as well as their applications in clinical practice and research, with examples to support cancer care.