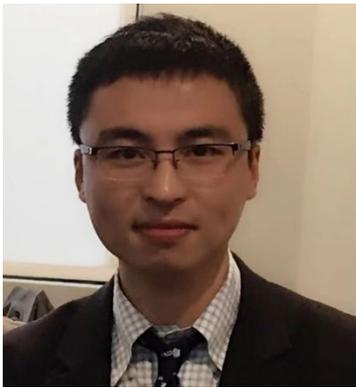


Department of Data Science

Data Science Seminar Series

Augmented Intelligence for Evidence-based medicine: From Clinical Trial Retrieval to Evidence Appraisal



Yingcheng Sun

**Postdoctoral Researcher
Columbia University**

Date: Tuesday, March 8th,
Time: 2022 2:30 PM – 3:30
Location: PM EST Zoom Virtual
Web Link: [Zoom Meeting Room Link](#)

Evidence-based medicine is the use of best evidence in making decisions about the care of individual patients. Randomized controlled clinical trials provide the most reliable medical evidence. In the life cycle of clinical trials, from study design to conduct, and to evidence comprehension and synthesis, there are many unmet user needs among clinical researchers, patients, and clinicians, causing suboptimal decisions and potentially compromised clinical trials.

In this talk, I will present my research work that aims to provide Augmented Intelligence to these different stakeholders of clinical trials in order to augment their decision making. First, I will introduce my work on interactive search of clinical trials for patients by minimizing human computer interaction. Second, I will talk about optimizing clinical participant selection with an analytical framework that enables real-time user intervention for criteria selection and parsing error correction. Third, I will introduce my work on computational medical evidence representation and literature-based medical evidence discovery to facilitate evidence appraisal. The talk will conclude with a discussion of promising future opportunities and potential collaborations.

Dr. Yingcheng Sun is a Postdoctoral Research Scientist in the Department of Biomedical Informatics at Columbia University in New York City under the supervision of Prof. Chunhua Weng. He received his Ph.D. degree in Computer Science from Case Western Reserve University advised by Prof. Kenneth Loparo. His research interests include intelligent information retrieval, Natural Language Processing and applied machine learning with applications in clinical informatics to solve important healthcare problems. He has published more than 20 papers at top conferences and journals such as Applied Clinical Informatics, Journal of Biomedical Informatics, and Journal of the American Medical Informatics Association.