



**Deep Learning Program
Triangle Machine Learning Day
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SPEAKER TITLES/ABSTRACT

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“Data-driven Decision Making in Healthcare Operations”

Researchers have used operations research methods to design and control operations in clinics, hospitals, and pre-hospital settings for decades. Unfortunately, only a small portion of these efforts have successfully translated into practice. The main issue was that most of the prior work on healthcare operations ignored the importance of marriage between data and mathematical models. In recent years, with the availability of abundant data – particularly, electronic health records data -- and growing interest in data analytics, the healthcare operations field has entered a new and exciting era. In this talk, I will provide an overview of my research group’s recent efforts in this direction. Specifically, I will explain how we used data-driven approaches to decision making in emergency department operations in collaboration with UNC Health Care, and also discuss future research potentials to incorporate machine learning methods into operational decisions in medical facilities.