BME Seminar Series

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Date: Friday, February 15, 2019
Time: 11:30 am
Location: Clark Hall 110, Homewood Campus Video-teleconferenced to Traylor 709, Medicine Campus

Machine Learning for Medical Decision Support

Abstract: With the rapid growth of electronic health records and the advancement of machine learning technologies, needs for AI-enabled clinical decision-making support is emerging. In this talk, I will present some recent work toward these needs, where an integrative system that distills insights from large-scale and heterogeneous patient data, as well as learns and integrates medical knowledge from broader sources such as the literatures and domain experts, and empowers medical professionals to make accurate and efficient decisions within the clinical flow, was built. In particular, I will discuss two aspects of practical clinical decision-support -- automatic generation of textual reports from chest X-ray images and effective retrieval of similar patients for personalized treatment.

Bio: Pengtao Xie is a senior director of engineering at Petuum Inc. He received a PhD from the Machine Learning Department at Carnegie Mellon University in 2018. His research lies at the intersection of machine learning and healthcare, where he developed diversity-promoting learning methods and distributed learning systems for improving the quality and efficiency of healthcare. His research outcomes have been adopted by top hospitals, medical device companies, imaging centers, etc. He is the recipient of the Innovator Award presented by the Pittsburgh Business Times, the Siebel Scholars award, and the Goldman Sachs Global Leader Scholarship. He received his MS from Tsinghua University and BS from Sichuan University.