1. Title

AI Meets Visualization in Healthcare

2. Abstract

Artificial intelligence (AI) techniques provide great opportunities for improving healthcare research and clinical practice. With the recent advancements along with ever-increasing clinical data, researchers have demonstrated successful application of AI techniques in predicting diagnosis, unexpected readmission, and mortality of patients. However, there has been limited adoption of the techniques for clinical use because of their black-box nature. Despite growing research in explainable AI methods, healthcare professionals may still find difficulties in understanding and using the techniques without visual aids. Visual analytics can help clinical experts to gain transparency and trust in using AI techniques for analyzing healthcare data. This talk aims to provide a brief overview of the stated problems and to describe the potential role of visual analytics in healthcare research and clinical practice by discussing two case studies from previous research.

3. Short bio of you

Bum Chul Kwon (goes by “BC”) is a Research Staff Member at IBM Research, where he is a member of the Center for Computational Health. His research goal is to enhance users' abilities to derive knowledge from data and to make informed decisions using interactive visualization systems powered by AI. His work has been published at premier venues in visualization and human-computer interaction, such as IEEE InfoVis, IEEE VAST, IEEE TVCG, and ACM SIGCHI. He also has served as an associate chair for the ACM CHI Paper Program Committee, a publicity chair and program committee for IEEE VIS, and a general chair for the Visual Analytics Health Care workshop. Prior to joining IBM Research, he worked as a postdoctoral researcher in University of Konstanz, Germany. He earned his Ph.D. and M.S. in Industrial Engineering from Purdue University, West Lafayette, Indiana, and his B.S. from University of Virginia, Charlottesville, Virginia.