Toward Fairness-Aware Recommender Systems

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Abstract

Modern recommender systems build upon advances in machine learning to help users access critical information and knowledge, connect to media, build social circles, and shape our daily decisions. With wide and deep impacts, these systems exert strong but often unforeseen and detrimental influence on the social processes connected to culture, politics, ethics, economic well-being, and even social justice. For example, machine learning based recommender systems have been shown to exhibit discrimination against women and people of color; expose children to inappropriate content; and intensify political polarization. Therefore, there is a pressing need to identify, analyze, and address these potential risks and harms to augment responsibility while advancing recommender systems. In this talk, I will introduce my work on fairness in recommender systems. I will discuss fairness for both items and users in recommender systems, and introduce simple but powerful fairness enhancing methods we developed.

Biography

Dr. Ziwei Zhu is an Assistant professor in the Department of Computer Science at George Mason University. Before joining GMU, he got his PhD degree from Texas A&M University. He works at the intersection of machine learning, data mining, and information retrieval with a special focus on augmenting responsibility in user-centered machine learning systems to provide fair, unbiased, accountable, and trustworthy information services to both end-users and society-at-large. Ziwei has authored more than 30 publications in premier academic venues such as KDD, SIGIR, WebConf, and WSDM.