Title: Fairness in Algorithmic Decision Making

Speaker: Dr. Abhijnan Chakraborty (Post-doctoral Researcher at the Max Planck Institute for Software Systems, Germany)

Abstract:

Algorithmic (data-driven) decision making is increasingly being used to assist or replace human decision making in domains with high societal impact, such as banking (estimating creditworthiness), recruiting (ranking job applicants), judiciary (offender profiling), healthcare (identifying high-risk patients who need additional care) and journalism (recommending news-stories). Consequently, in recent times, multiple research works have uncovered the potential for bias (unfairness) in algorithmic decisions in different contexts, and proposed mechanisms to control (mitigate) such biases. However, the emphasis of existing works has largely been on fairness in supervised classification or regression tasks, and fairness issues in other scenarios remain relatively unexplored. In this talk, I will cover our recent works on incorporating fairness in recommendation and matching algorithms in multi-sided platforms, where the algorithms need to fairly consider the preferences of multiple stakeholders. I will discuss the notions of fairness in these contexts and propose techniques to achieve them. I will conclude the talk with a list of open questions and directions for future work.

Bio:

Abhijnan Chakraborty is a Post-doctoral Researcher at the Max Planck Institute for Software Systems (MPI-SWS), Germany. He obtained his PhD from the Indian Institute of Technology (IIT) Kharagpur under the supervision of Prof. Niloy Ganguly (IIT Kharagpur) and Prof. Krishna Gummadi (MPI-SWS). During PhD, he was awarded the Google India PhD Fellowship and the Prime Minister's Fellowship for Doctoral Research. Prior to joining PhD, he spent two years at Microsoft Research India, working in the area of mobile systems. His current research interests fall under the broad theme of Computing and Society, covering the research areas of Social Computing, Information Retrieval and Fairness in Machine Learning. He has authored several papers in top-tier computer science conferences including WWW, KDD, AAAI, AAMAS, CSCW, ICWSM and MobiCom. His research works have won the best paper award at ASONAM'16 and best poster award at ECIR'19. He is one of the recipients of internationally competitive research grant from the Data Transparency Lab to advance his research on fairness and transparency in algorithmic systems. More details about him can be found at https://people.mpi-sws.org/~achakrab