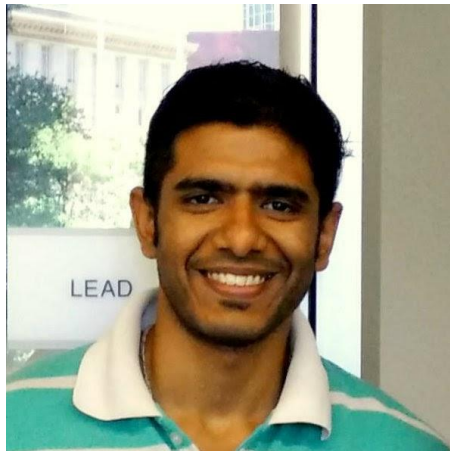


Responsibility in AI Systems & Experiences (RAISE) at the University of Washington presents:



Subho Majumdar

An Applied Research Perspective on Algorithmic Fairness

Friday April 8, 2022, 9-10am PT

Join: <https://washington.zoom.us/j/94636255672>

Abstract: In spite of considerable academic interest, methods in algorithmic fairness are making their way into industry applications only recently. In this talk, I summarize my own journey of conceptualizing and implementing ML fairness research in an industry setup. I start with introducing SIFT—a System to Integrate Fairness Transparently—that platformizes cross-project fairness monitoring in an enterprise setup. Following this, I dive deeper into two technical projects. The first work details a quantitative approach to characterize the knowledge space of research in trustworthy ML using network modelling techniques. The outcomes can be utilized to obtain a 'bias score' of a new ML project inside the company using metadata from older projects, thus aiding the vetting process of the new project for fairness concerns. The second work deals with spatial fairness. Current algorithmic fairness literature lacks methods to account for underlying geographic dependency while evaluating or mitigating bias issues for spatial data. Demographic bias in spatial data applications often gets confounded by underlying spatial autocorrelation. We propose hypothesis testing methodology to detect the presence and strength of this effect, then account for it using a spatial filtering-based approach—in order to enable application of existing bias detection methods.

Bio: Subho Majumdar is a Senior Applied Scientist in Splunk. Previously, he spent 3 years in AT&T Labs, where he led research and development on ethical AI. The focus of his research is on trustworthy machine learning *in the wild*: not only proposing novel solutions to technical problems that ensure qualities such as fairness, transparency, privacy, and robustness, but also implementing them in real-world use cases. Subho deeply believes in the power of data to bring about positive changes in the world—he has co-founded the Trustworthy ML Initiative, and has been a part of multiple successful industry-academia collaborations in the data for good space. Subho holds a PhD in Statistics from the University of Minnesota.

RAISE is a UW-wide group of students and faculty interested in the broad space of responsibility in AI, trustworthy machine learning, human-centered computing and data science. As part of this group, our mission is to engage in scholarly, educational, and outreach activities that lead to foundational research in these areas.

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