Call for Contributions:

Special Issue of Journal of Data Science on

Statistical Aspects of Trustworthy Machine Learning

Deadline: December 31, 2024

The Journal of Data Science (JDS) (`http://jds-online.org`) invites submissions for a special issue on "Statistical Aspects of Trustworthy Machine Learning." Machine learning algorithms are increasingly being deployed in a wide range of domains, such as medicine, advertising, criminal justice, speech recognition, and computer vision, among others. These applications have the potential for significant impacts on our daily lives, but widespread societal acceptance has lagged behind due to the issue of trust. While the field of statistics has played an integral role in the machine learning revolution, much of its attention has focused on developing accurate algorithms. In addition to being accurate, trustworthy machine learning methods must also exhibit qualities such as interpretability, fairness/transparency, privacy preservation, and robustness. A recent workshop at the Banff International Research Station aimed to bring together members of both the statistics and computer science communities to discuss recent progresses and potential statistical solutions to trustworthy machine learning.

As a follow-up to the workshop, this special issue aims to showcase the state-of-the-art advancements in statistical aspects of machine learning's interpretability, fairness/transparency, privacy preservation, and robustness. We invite submissions addressing statistical solutions to trust challenges in diverse machine learning applications. Example areas are interpretability of complex models, fairness/transparency in algorithmic decision making, privacy preservation in algorithm development, and robustness in varied environments. Contributions can target any of the JDS sections, including Philosophies of Data Science, Statistical Data Science, Computing in Data Science, Data Science in Action, Data Science Review, and Education in Data Science. Submissions may range from time-sensitive cutting-edge developments to comprehensive surveys or tutorials. All submitted manuscripts must contain original, unpublished work that is not under consideration for publication elsewhere. Submitted manuscripts will undergo a regular, fast review process, and accepted manuscripts will be published online immediately.

To submit your manuscript, please visit `https://www.e-publications.org/ruc/sbs/JDS/login` and mention the special issue in your cover letter.

Since 2003, the Journal of Data Science has published research on a wide range of topics involving the understanding and effective use of field data. The journal underwent reform in July 2020 to better serve the data science community in the era of data science. Attractive features of the journal include completely free access, fast review times, and a focus on reproducible data science.

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