



Foundations and Challenges of Interpretable ML

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Message from the Guest Editors

Dear Colleagues,

This special issue focuses on interpretable machine learning (also sometimes called Explainable AI or XAI), a set of approaches which aim at providing data-driven models with increased understanding and transparency.

We welcome works on definitions, mechanisms, as well as measures of interpretability (e.g., comparative user studies covering any group of stakeholders). Survey, meta-analysis, and critical review papers that contrast and highlight domains of applicability and limitations thereof are particularly welcome. More specifically, topics of interest include but are not limited to:

- Definition and study of interpretability
- Human-in-the-loop approaches
- Cognitive analysis of human learning
- Exemplar-based reasoning
- Logic-based and symbolic reasoning approaches
- Causality-based approaches
- Novel applications requiring interpretability
- Interpretation of black-box models
- Interpretable design via suitable proxies, i.e., modularity, sparsity
- Interpretable supervised models
- Interpretable unsupervised models
- Interpretable reinforcement learning
- Inspection and debugging approaches for ML systems
- Transparent models for auditability





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Message from the Editor-in-Chief

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