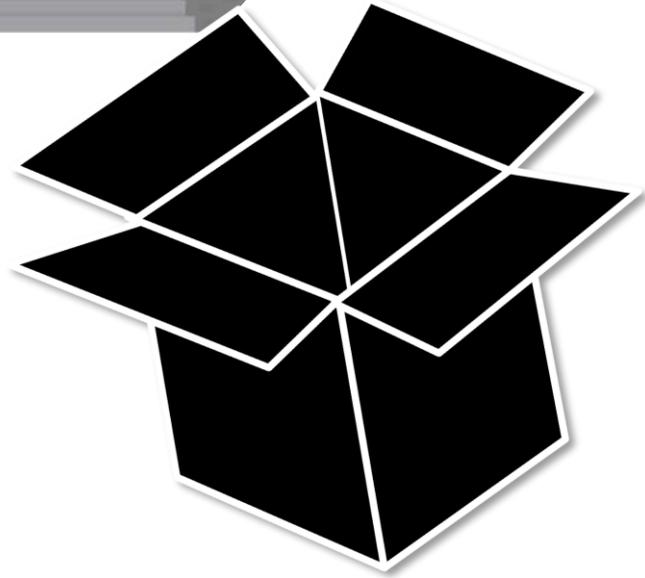


XAI TREE



Martin Jullum, NR
Jacob Sjødin, NAV

Joint work with
Robindra Prabhu, NAV
Anders Løland, NR



Customer contact



Customer

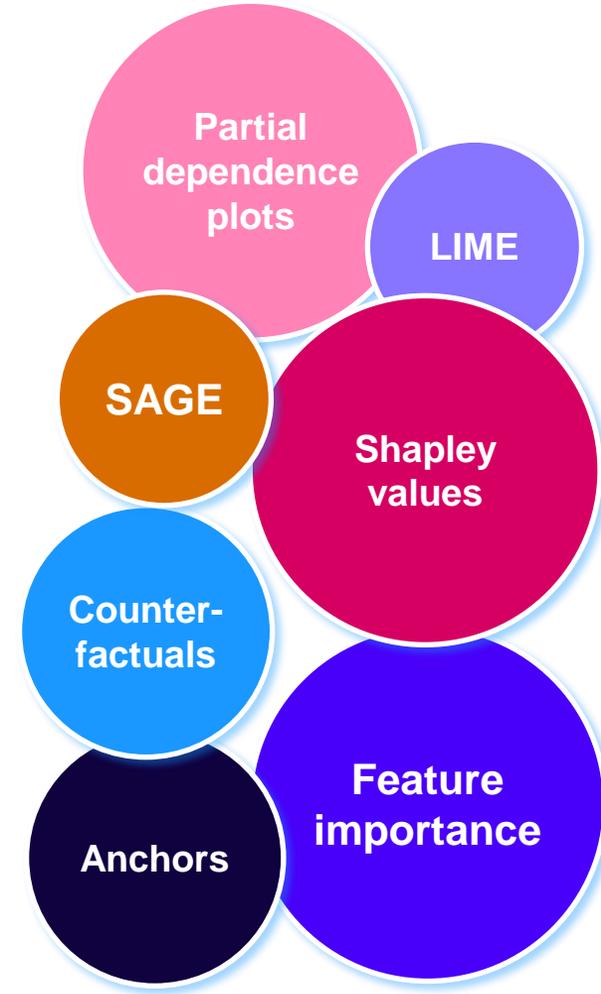


Data scientist



Legal department

XAI TREE



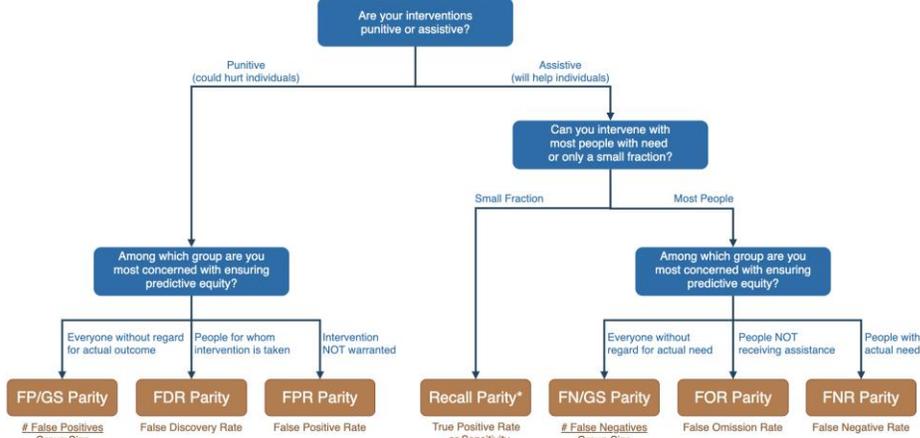
EXPLANATION METHODS



EXPLANATION NEEDS

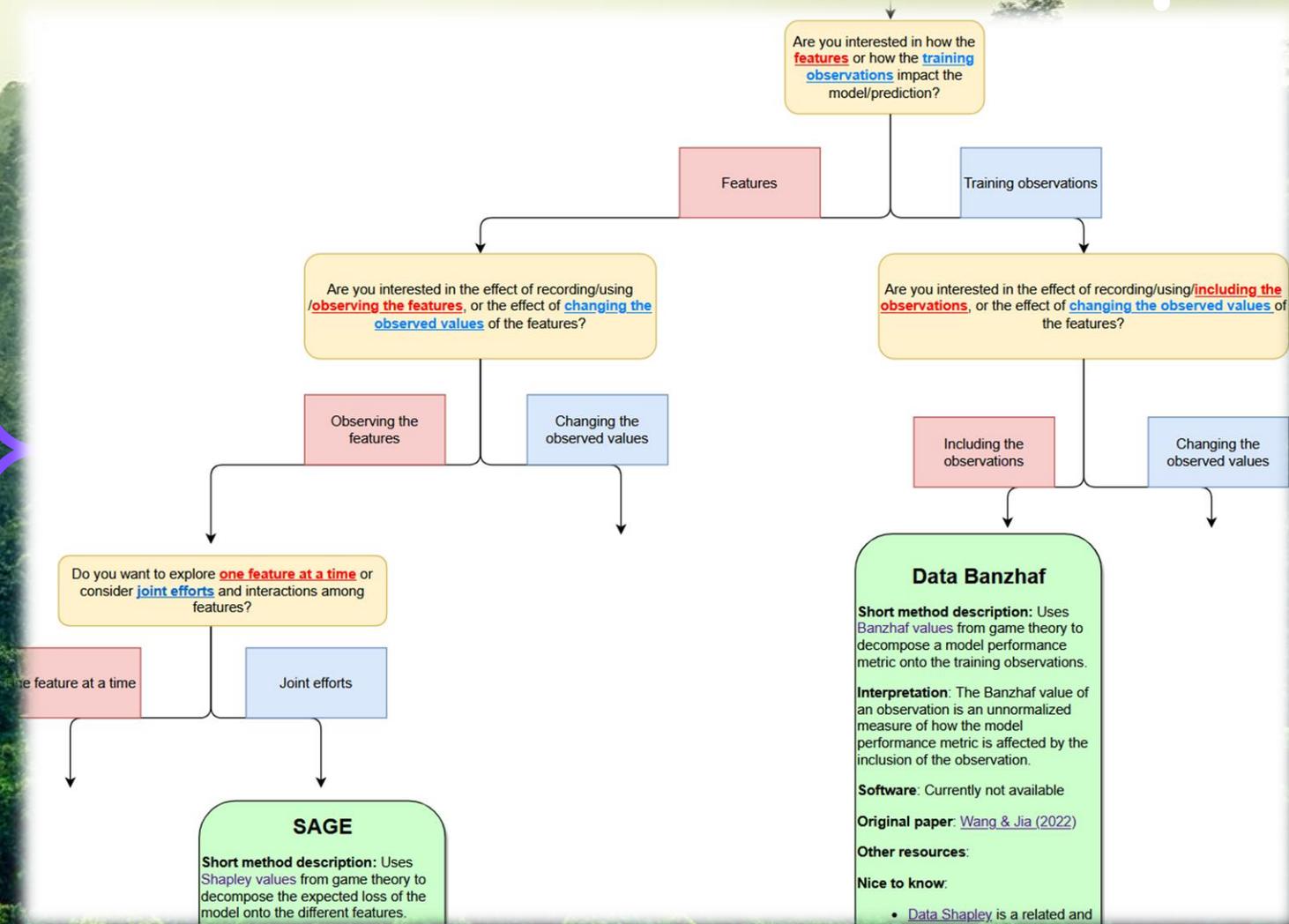


FAIRNESS TREE (Zoomed in)



Carnegie Mellon University

TREE-BASED INTERACTIVE DECISION TOOL FOR XAI³



Data Banzhaf

Short method description: Uses Banzhaf values from game theory to decompose a model performance metric onto the training observations.

Interpretation: The Banzhaf value of an observation is an unnormalized measure of how the model performance metric is affected by the inclusion of the observation.

Software: Currently not available

Original paper: Wang & Jia (2022)

Other resources:

Nice to know:

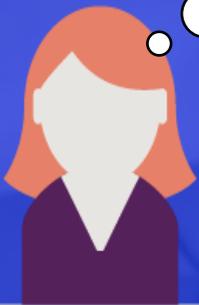
- [Data Shapley](#) is a related and

SAGE

Short method description: Uses Shapley values from game theory to decompose the expected loss of the model onto the different features.

XAI TREE

Which absences are probably so long that I should **schedule a new meeting**?



16 weeks

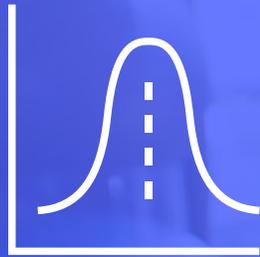
34 weeks

4 weeks

diagnose

Previous sick leaves

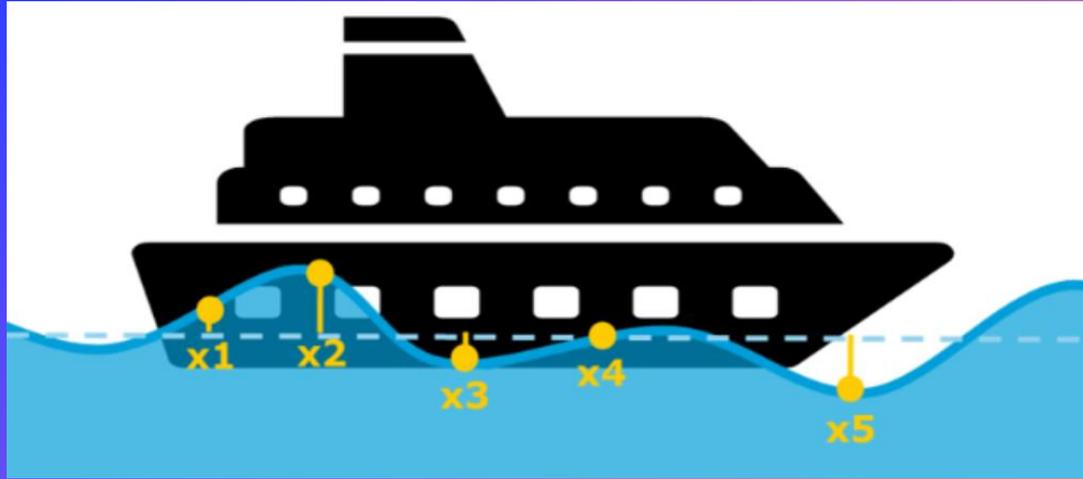
age



Machine learning model

Expected **duration** of the sick leave

Case 2: Explain model for mid-ship vertical bending moment



Data		

Sea state:
calm

Sea state:
rough

Sea state
Intense

- Features: Undisturbed wave elevation
- Initial model trained with limited data from different sea states
 - wave period
 - wave heights
 - wave direction
- Problem: Decide a strategy for further data collection
 - Which sea states provide the most valuable data?



xai-tree.nr.no

EXCLUSIVE
PRE-RELEASE FOR
BIGINSIGHTERS

FEEDBACK
WELCOME