## tree ensemble regressor.predict

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Copy fnpredict(refself:TreeEnsembleRegressor,X:Tensor)->(Span, MutMatrix::);

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Tree Ensemble regressor. Returns the regressed values for each input in N.

## Args

- self
- : TreeEnsembleRegressor A TreeEnsembleRegressor object.
- X
- : Input 2D tensor.

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## Returns

- · Regressed values for each input in N
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Type Constraints

TreeEnsembleRegressor andX must be fixed points

Examples

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Copy useorion::numbers::FP16x16; useorion::operators::tensor::{Tensor,TensorTrait,FP16x16Tensor,U32Tensor}; useorion::operators::ml::{NODE\_MODES,TreeEnsembleAttributes,TreeEnsemble}; useorion::operators::ml::tree\_ensemble::tree\_ensemble\_regressor::{
TreeEnsembleRegressor,POST\_TRANSFORM,TreeEnsembleRegressorTrait,AGGREGATE\_FUNCTION }; useorion::operators::matrix::{MutMatrix,MutMatrixImpl};

fntree\_ensemble\_regressor\_helper( agg:AGGREGATE\_FUNCTION )->(TreeEnsembleRegressor,Tensor) { letn\_targets:usize=1; letaggregate\_function=agg; letnodes\_falsenodeids:Span=array![4,3,0,0,0,2,0,4,0,0].span(); letnodes\_featureids:Span=array![0,2,0,0,0,0,0,0,0].span(); letnodes\_missing\_value\_tracks\_true:Span=array! [0,0,0,0,0,0,0,0,0,0,0,0].span(); letnodes:Span=array![NODE\_MODES::BRANCH\_LEQ, NODE\_MODES::LEAF, NODE\_MODES::LEAF, NODE\_MODES::LEAF, NODE\_MODES::LEAF, NODE\_MODES::LEAF, NODE\_MODES::LEAF, NODE\_MODES::LEAF, NODE\_MODES::LEAF, NODE\_MODES::LEAF, NODE\_MODES::LEAF] .span(); letnodes\_nodeids:Span=array![0,1,2,3,4,0,1,2,3,4].span(); letnodes\_treeids:Span=array! [0,0,0,0,1,1,1,1,1].span(); letnodes\_truenodeids:Span=array![1,2,0,0,0,1,0,3,0,0].span(); letnodes\_values:Span=array! FP16x16{ mag:17462, sign:false}, FP16x16{ mag:40726, sign:false}, FP16x16{ mag:0, sign:false}, FP16x16{ mag:32768, sign:false}, FP16x16{ mag:32768, sign:false}, FP16x16{ mag:0, sign:false}, FP16x16{ mag:32768, sign:false}, FP16x16{ mag:32768, sign:false}, FP16x16{ mag:32768, sign:false}, FP16x16{ mag:0, sign:false}, FP16x16{ mag:32768, sign:false}, FP16x16{ mag:32768, sign:false}, FP16x16{ mag:0, sign:false}, FP16x16{ mag:32768, sign:false}, FP16x16{ mag:32768, sign:false}, FP16x16{ mag:0, sign:false}, FP16x16{ mag:32768, sign:false}, FP16x16{ mag:0, sign:false}, FP16x16{ mag:0, sign:false}, FP16x16{ mag:0, sign:false}, FP16x16{ mag:0, sign:false}, F

letbase\_values:Option>=Option::None; letpost\_transform=POST\_TRANSFORM::NONE;

lettree ids:Span=array![0,1].span();

letmutroot index:Felt252Dict=Default::default(); root index.insert(0,0); root index.insert(1,5);

 $let atts = Tree Ensemble Attributes \{ nodes\_false nodes\_feature ids, nodes\_missing\_value\_tracks\_true, nodes\_modes, nodes\_node ids, nodes\_true ids, nodes\_tru$ 

letmutensemble:TreeEnsemble=TreeEnsemble{ atts, tree ids, root index, node index };

letmutregressor:TreeEnsembleRegressor=TreeEnsembleRegressor{ ensemble, target\_ids, target\_nodeids, target\_treeids, target\_weights, base\_values, n\_targets, aggregate\_function, post\_transform };

letmutX:Tensor=TensorTrait::new( array![3,3].span(), array![FP16x16{ mag:32768, sign:true}, FP16x16{ mag:26214, sign:true}, FP16x16{ mag:19660, sign:true}, FP16x16{ mag:13107, sign:true}, FP16x16{ mag:6553, sign:true}, FP16x16{ mag:6553, sign:false}, FP16x16{ mag:13107, sign:false}, FP16x16{ mag:19660, sign:false}, ] .span() );

(regressor,X) }

[0.5769, 0.5769, 0.5769]

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Previous Tree Ensemble Regressor Next Linear Classifier

Last updated2 months ago