

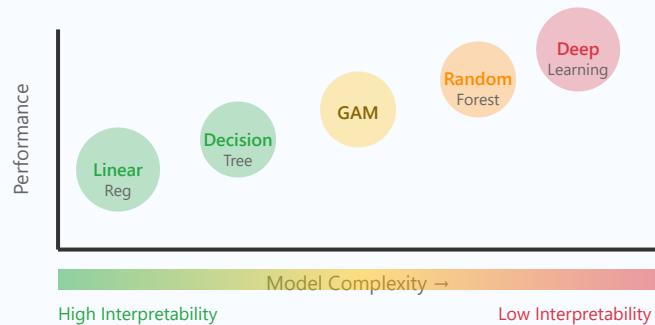
# Interpretable ML for Clinical Adoption



**Black Box Problem:** Clinicians won't trust models they can't understand

## Glass Box Models

Interpretability-Performance Trade-off

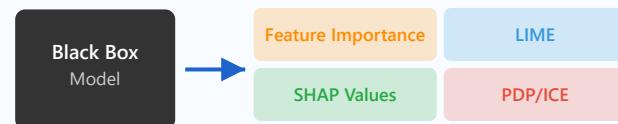


- Linear/Logistic Regression
- Decision Trees
- GAMs (Generalized Additive Models)
- Rule-based systems

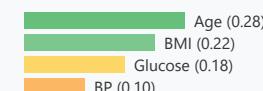
*Inherently interpretable*

## Post-hoc Explanations

Making Black Boxes Transparent



Example: Feature Importance



- Feature Importance (RF, XGBoost)
- Partial Dependence Plots
- LIME (Local Interpretable)
- SHAP Values

*Explain black boxes*

**Clinical Acceptance Requires:** Model explanation + Clinical validation + Physician trust + Regulatory approval