

# Feature Selection



## Filter Methods



*Independent of model*

- Correlation analysis
- Chi-square test
- ANOVA F-test
- Mutual information



## Wrapper Methods



- Forward selection
- Backward elimination
- Recursive Feature Elimination
- Genetic algorithms



## Embedded Methods



*Built into model*

- Lasso (L1)
- Ridge (L2)
- Elastic Net
- Tree importance

## ✓ Advanced & Clinical Considerations

Stability Selection

Permutation Importance

Clinical Interpretability

Domain Knowledge Integration