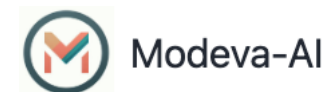
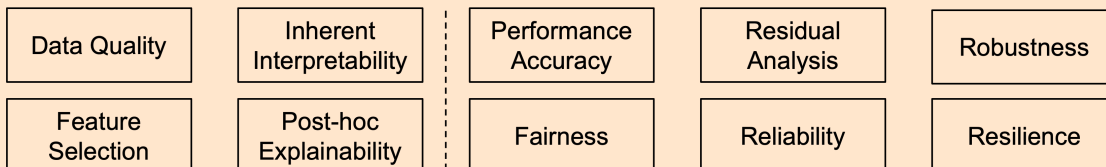


# Model Testing with Modeva :: CHEATSHEET



Modeva provides a comprehensive library of tests for **model testing** and **model validation**, ensuring conceptual soundness, as well as robust and reliable performance.



Refer to the Data Pipeline cheatsheet for **data quality check** and **feature selection**.

**INSTALLATION:** Modeva Python package

```
pip install modeva
```

**TestSuite Class** for model testing

```
from modeva import TestSuite  
ts = TestSuite(ds, model)
```

## Conceptual Soundness

**Inherent interpretability:** Modeva-native models only

```
ts.interpret_fi()  
ts.interpret_effects()  
ts.interpret_local_fi()
```

**Post-hoc explainability:** model-agnostic

```
ts.explain_pfi()  
ts.explain_hstatistic()  
ts.explain_pdp()  
ts.explain_ale()  
ts.explain_lime()  
ts.explain_shap()
```

## Performance Accuracy

```
ts.diagnose_accuracy_table()  
ts.diagnose_slicing_accuracy()
```

## Fairness Testing

```
ts.diagnose_fairness()  
ts.diagnose_slicing_fairness()  
ts.diagnose_mitigate_unfair_binning()
```

## Residual Analysis

```
ts.diagnose_residual_analysis()  
ts.diagnose_residual_interpret()  
ts.diagnose_residual_cluster()
```

## Overfitting Analysis

```
ts.diagnose_slicing_overfit()
```

## Reliability Testing

```
ts.diagnose_reliability()  
ts.diagnose_slicing_reliability()
```

## Robustness Testing

```
ts.diagnose_robustness()  
ts.diagnose_slicing_robustness()
```

## Resilience Testing

```
ts.diagnose_resilience()
```