

# Machine Learning Experiments

R / Python / Regression / Random Forest / K-Means

## Portfolio Report

A collection of practical machine learning experiments covering supervised learning, evaluation and clustering.

## Key Areas

- Regression and predictive modeling
- Random Forest experimentation
- Model evaluation with RMSE, MAE and  $R^2$
- Feature relationships and correlation analysis
- K-Means clustering and elbow-method planning

## Approach / Documentation

The experiments are designed for academic learning and focus on understanding the complete workflow from feature preparation to model evaluation and interpretation.

Prepared for portfolio presentation. Replace this document with the original full academic/professional report when available.