Engine Training Methods v1

Purpose

This document explains how to train all engines: baseline, archetype response, defender-aware, linear models, gradient boosting, and ensemble stackers.

Data Assembly

Training data assembled from feature tables: offense features, defense features, coverage features, deltas.

Baseline Engine

Baseline uses deterministic weighted formulas. Coefficients tuned via validation.

Archetype Engines

Train response curves per archetype using regression of deltas vs defense deltas.

Defender Submodel

Train models specifically on defender vs offensive matchup slices.

Linear Regression

Ridge/ElasticNet on feature matrix.

Gradient Boosting

Train XGBoost/LightGBM, optimize depth, trees, learning rate.

Ensemble Integration

Outputs from all engines feed stacking stage.