

Formula One Race Prediction

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The Model

XGBoost Pipeline

Regression Model

Built for use with multiple
metrics and explanatory
variables



Biggest Issues



Red Flags



Safety Cars



Incidents



Vehicle Faults

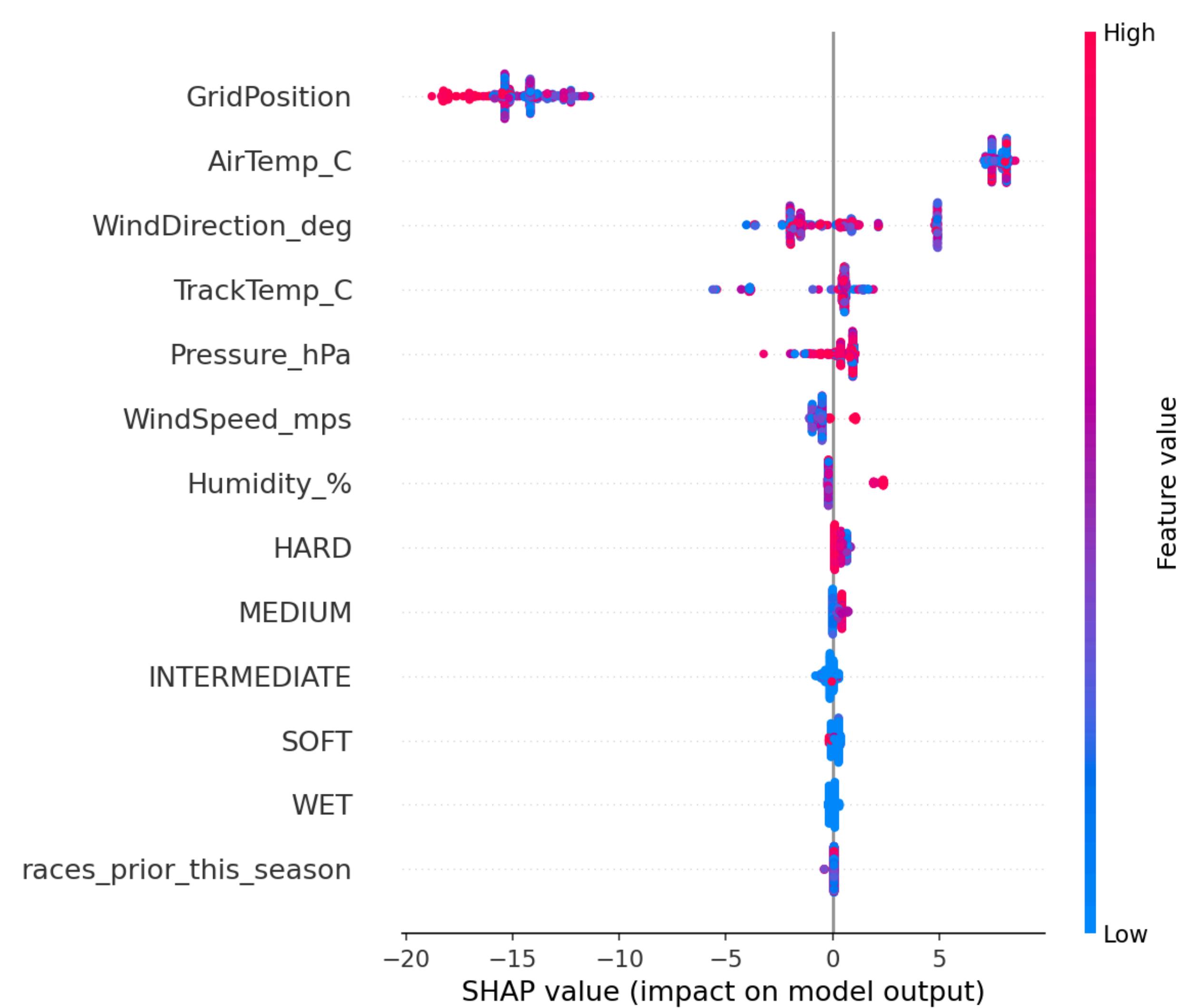
SHAP Values

What They Tells Us

Qualifying Matters

Air Temperature and
Wind Hinder
Performance

Track Temp
Determines Race
Speed



Biggest Predictors



Grid Position



Air Temp



Track Temp



Wind Direction

Weather Clusters

With Dominant Tire Compounds

Warm, Moderate Humidity

Hard Tire



Warm, Moderate Humidity

Medium Tire



Mild, Humid

Intermediate Tire



Warm, Humid

Soft Tire



Mid, Moderate Humidity

Hard Tire



Warm, Moderate Humidity

Hard Tire



Predicting Azerbaijan GP



1st

Max Verstappen

2nd

Carlos Sainz



3rd

Oscar Piastri

Real Azerbaijan GP Results



1st

Max Verstappen

2nd

George Russell

(Projected 8th)



3rd

Carlos Sainz

(Projected 2nd)

65%

Results Within 2 Positions
From Projection

Predicting Singapore GP



1st

Max Verstappen

2nd

George Russell



3rd

Oscar Piastri

Real Singapore GP Results



2nd
Max Verstappen



1st
George Russell



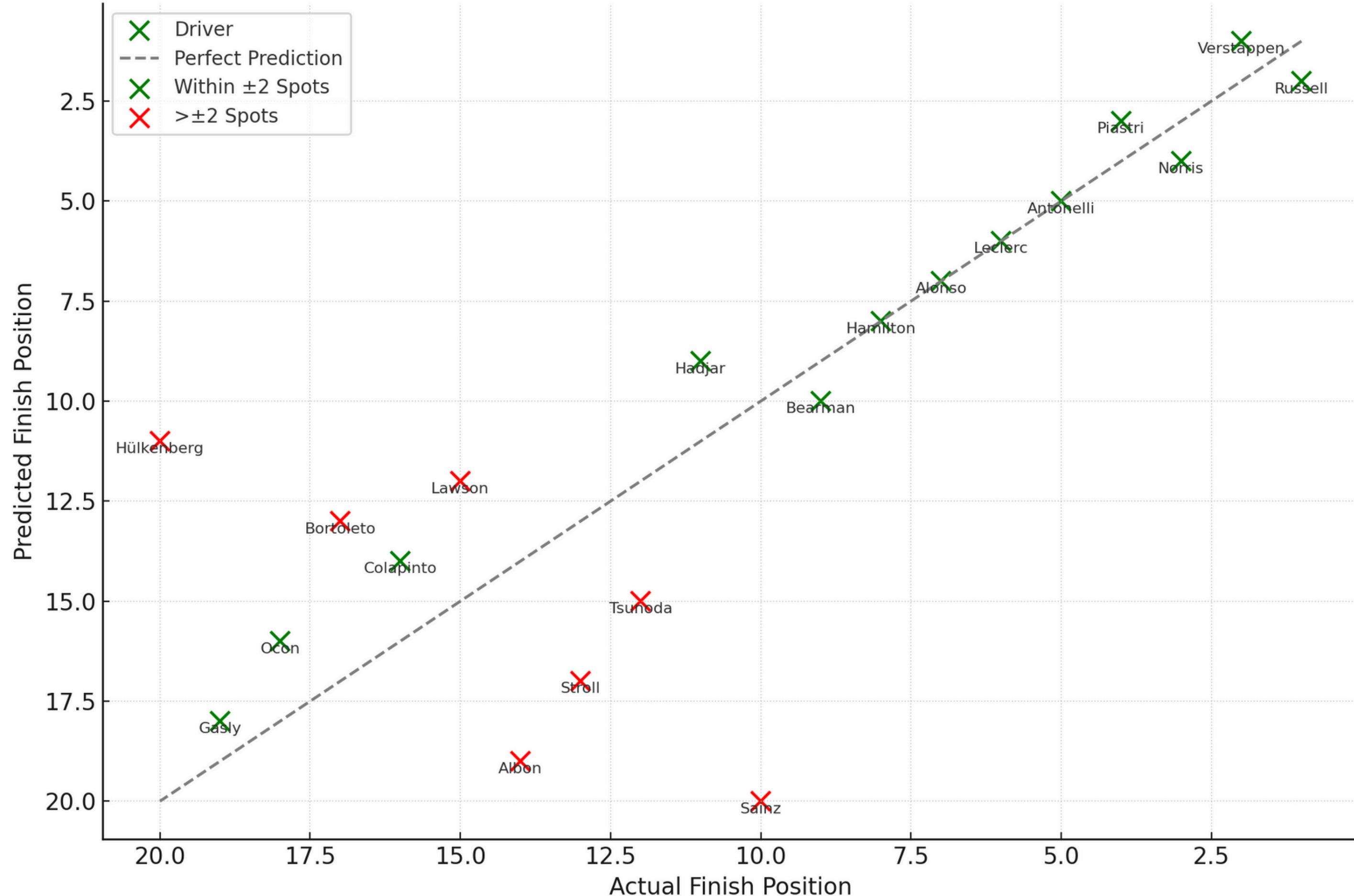
3rd
Lando Norris

60%

Results Within 2 Positions
From Projection

4 Exact Matches - 12 Within 2 Pos

Predicted vs Actual Finishing Positions - Singapore GP 2025



Future Model Improvements



Champion



Strategy



Track Layout



Qualifying