

Starter Pack Guide to Jupyter Notebooks

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This guide summarizes the purpose and content of each Jupyter notebook included in the College Football Data Starter Pack. These notebooks are designed to help users explore, visualize, and build with the provided data.

00_data_dictionary.ipynb

A comprehensive overview of all data files included in the Starter Pack, with sample columns and structure.

01_intro_to_data.ipynb

Guides users through loading core data files and understanding basic structure, useful for first-time users.

02_build_simple_rankings.ipynb

Builds basic team rankings using average EPA values to demonstrate introductory ranking techniques.

03_metrics_comparison.ipynb

Visualizes and compares offensive and defensive advanced metrics across teams with scatter and bar plots.

04_team_similarity.ipynb

Computes team similarity scores based on offensive and defensive profiles using a KNN-style approach.

05_matchup_predictor.ipynb

Introduces a simple matchup prediction model based on offensive/defensive differentials.

06_custom_rankings_by_metric.ipynb

Allows building custom rankings based on user-selected metrics, with optional normalization.

07_drive_efficiency.ipynb

Analyzes drive-level data to calculate scoring efficiency, with support for perquarter filtering.

08_offense_vs_defense_comparison.ipynb

Compares one team's offense against another's defense using radar charts and normalization.

09_opponent_adjustments.ipynb

Introduces iterative opponent adjustment logic to improve fairness in evaluating team strength.

10_srs_adjusted_metrics.ipynb

Builds separate offensive and defensive SRS-like metrics for team performance adjustment.

11_metric_distribution_explorer.ipynb

Interactive histograms of metric distributions to explore ranges and team percentiles.

12_efficiency_dashboards.ipynb

Creates simple dashboard-style visualizations to compare team efficiency in multiple areas.

For additional help or to ask questions about these notebooks, join the Discord or drop in during monthly Office Hours.

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