

NEW GAMEPLAN FOR NBA ATS MODEL

PHASE 1 — Repo Structure

- Ensure src/, data/raw/, data/processed/, models/, notebooks/ exist
- Key scripts: build_dataset.py, features.py, train.py, evaluate.py, predict.py

PHASE 2 — Build Clean ATS Dataset

- Load odds & scores
- Compute spread, final margin, covered
- Output: data/processed/ats_games.csv

PHASE 3 — Feature Engineering

- Season win% (pre-game)
- Last3 win%
- Rest days
- 5-game rolling box score stats
- Deltas (home – away)
- Output: data/processed/ats_features.csv

PHASE 4 — Train/Val/Test Split

- Balanced by season + day of week
- Train logistic regression baseline + full model
- Save models → models/*.pkl

PHASE 5 — Evaluation

- Accuracy, AUC, Log Loss
- Calibration
- Confidence-based betting performance

PHASE 6 — Prediction Pipeline

- predict.py: probability home covers based on new game input

PHASE 7 — Notebooks

- 01_explore_data.ipynb (distributions, quality checks)
- 02_feature_checks.ipynb (feature validation)

PHASE 8 — GitHub Workflow

- git add .
- git commit -m "message"
- git push

PHASE 9 — Enhancements

- Add ELO
- Add injury data
- Add LightGBM/XGBoost
- Add backtesting (ROI on confidence > 0.58)

Immediate Steps

1. Run build_dataset.py
2. Run features.py
3. Run train.py
4. Run evaluate.py