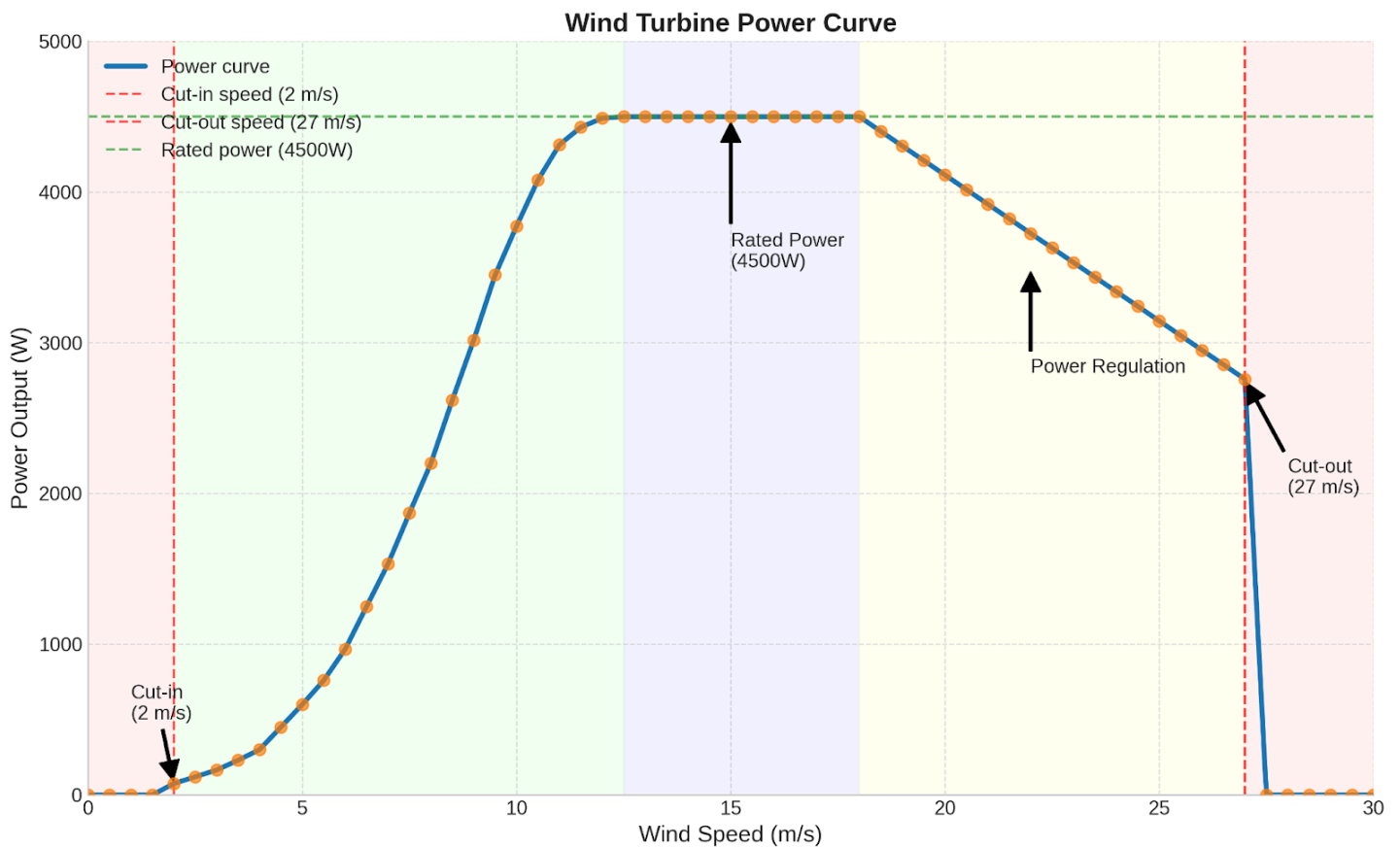
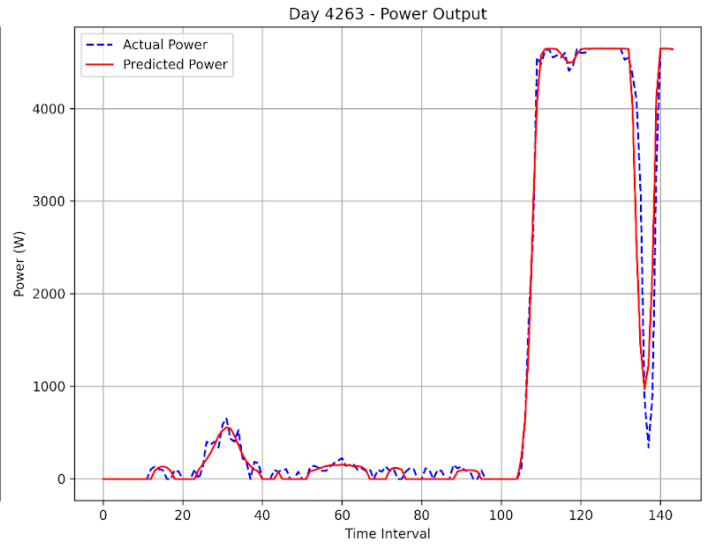
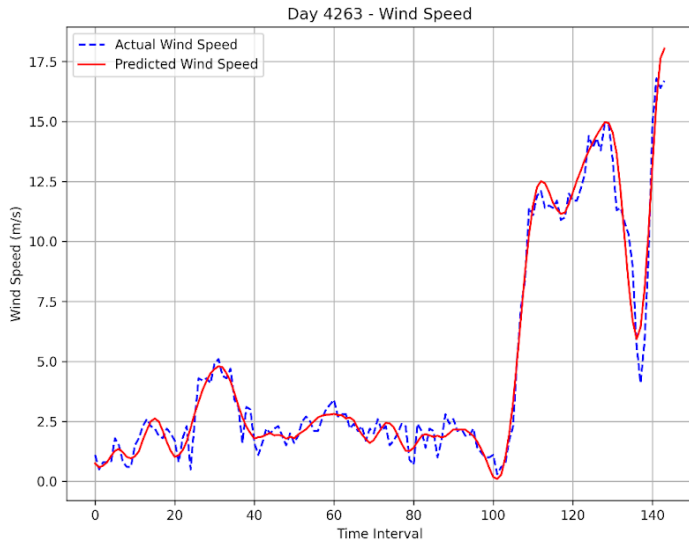
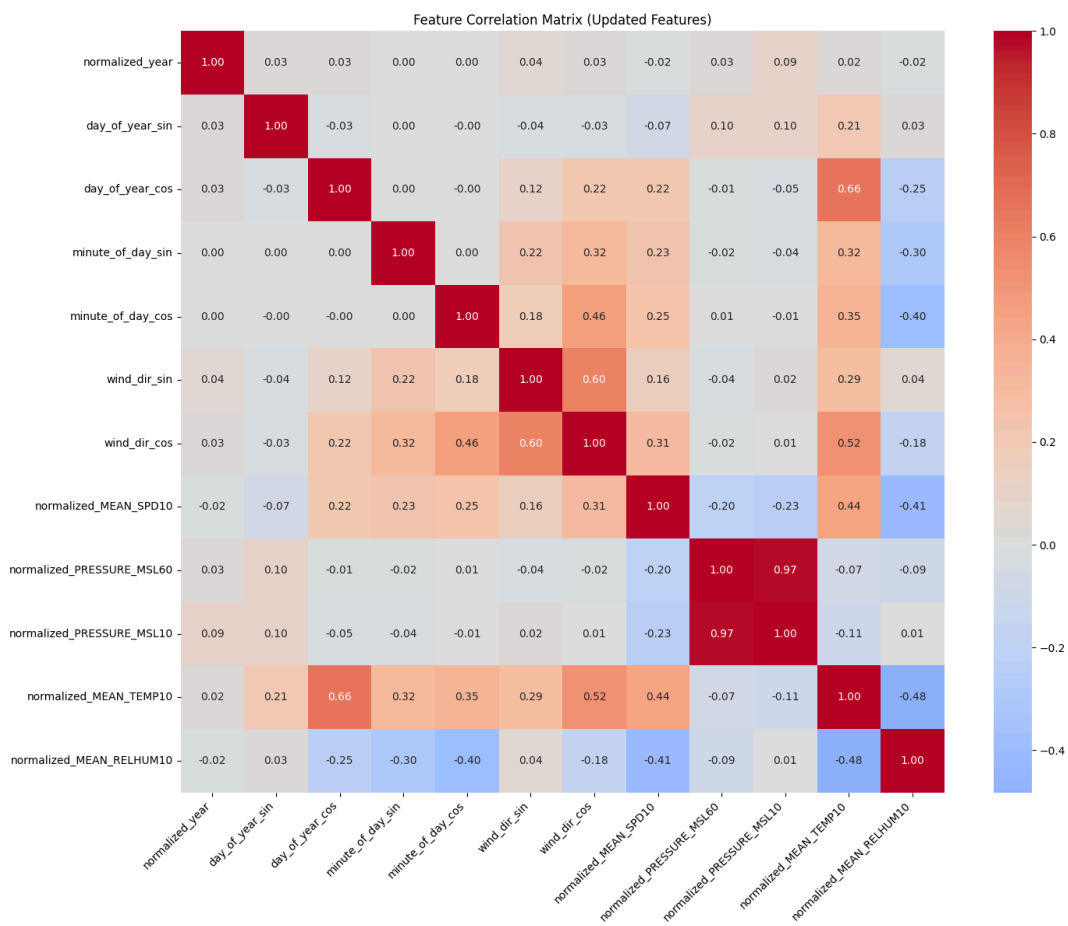
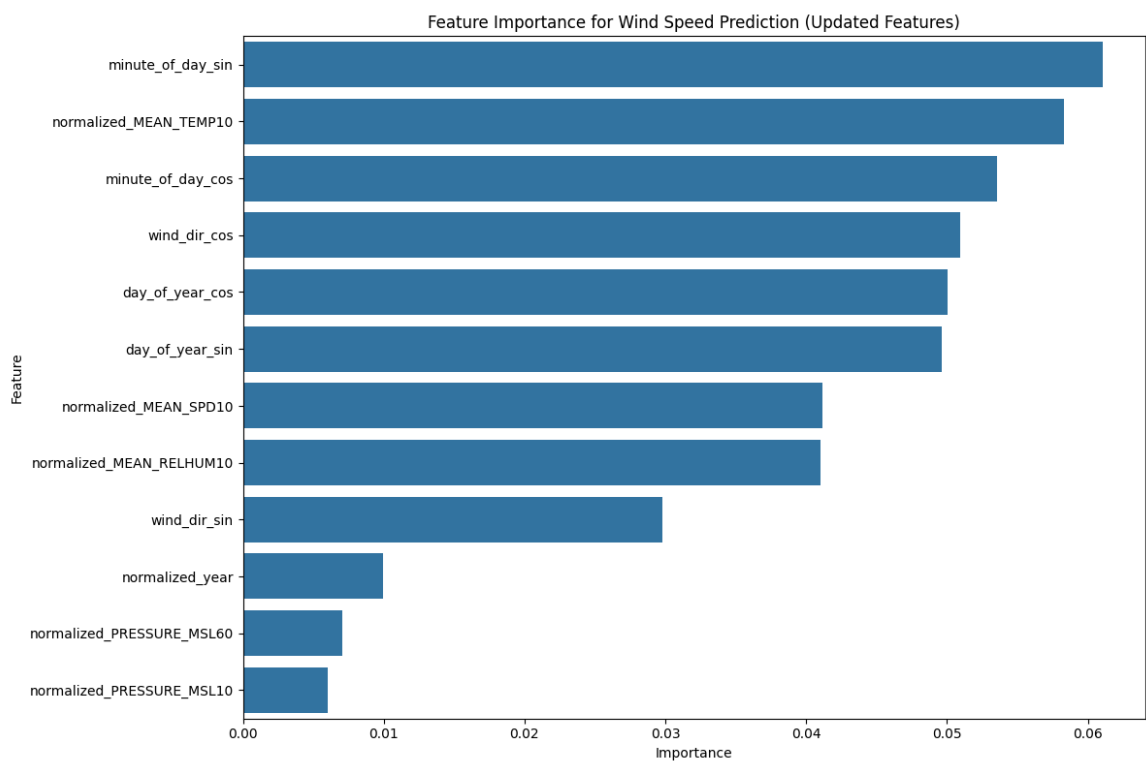


Wind Speed and Power Forecasting

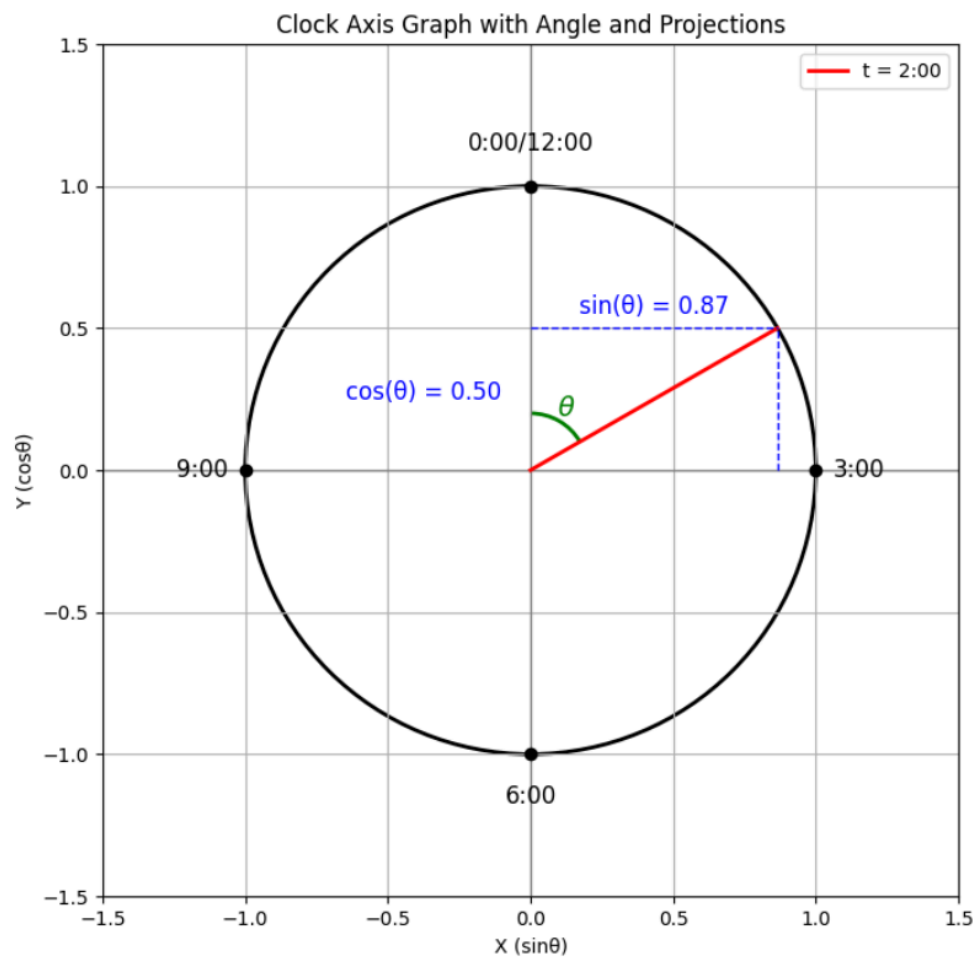
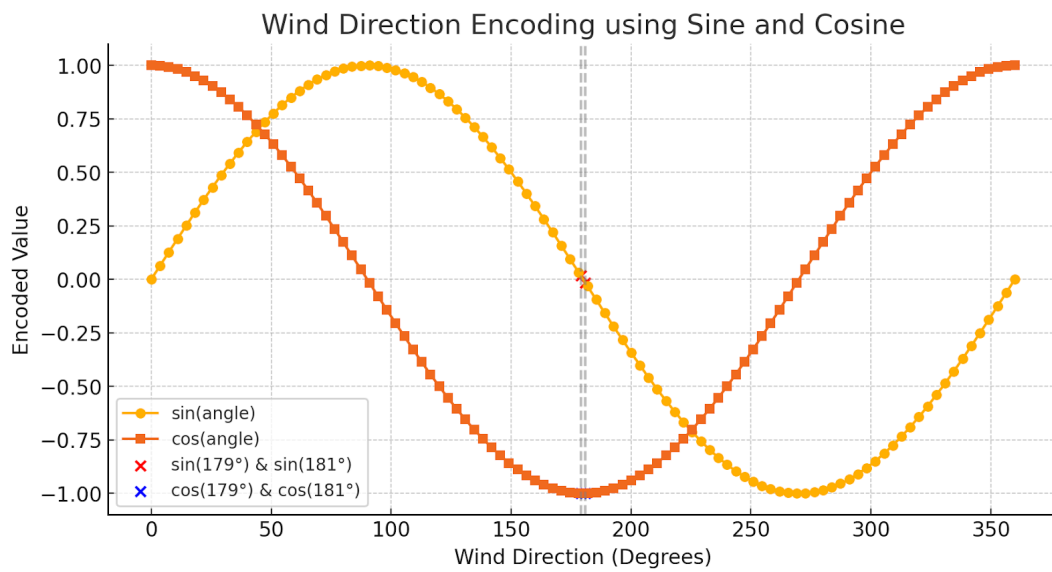


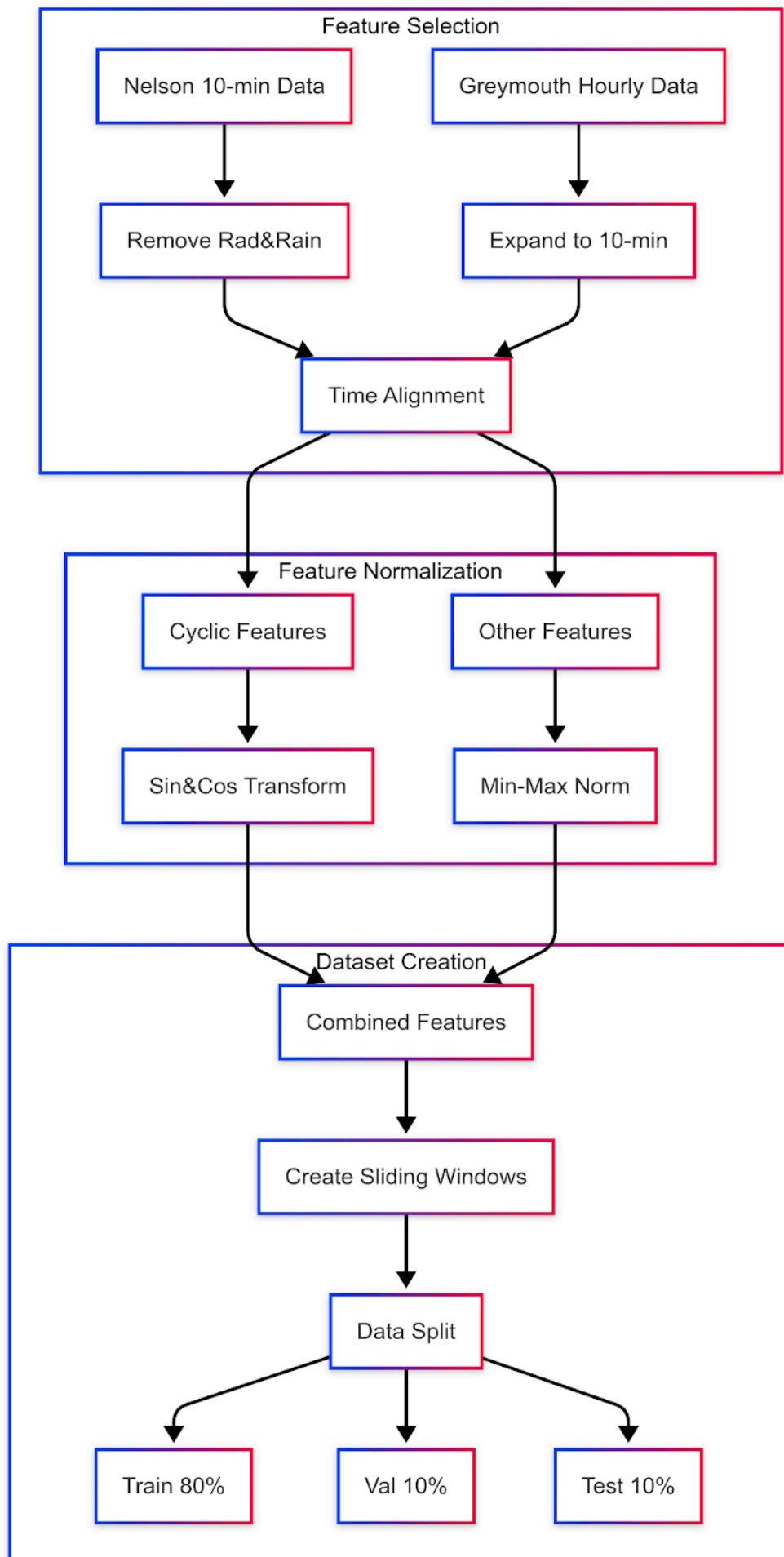
The power curve shows how a wind turbine converts wind energy to electrical power. Cut-in speed (2 m/s) is where generation begins. Rated power (4500W) is reached at 12.5 m/s. Power regulation begins at 18 m/s, and the turbine cuts out at 27 m/s to prevent damage.

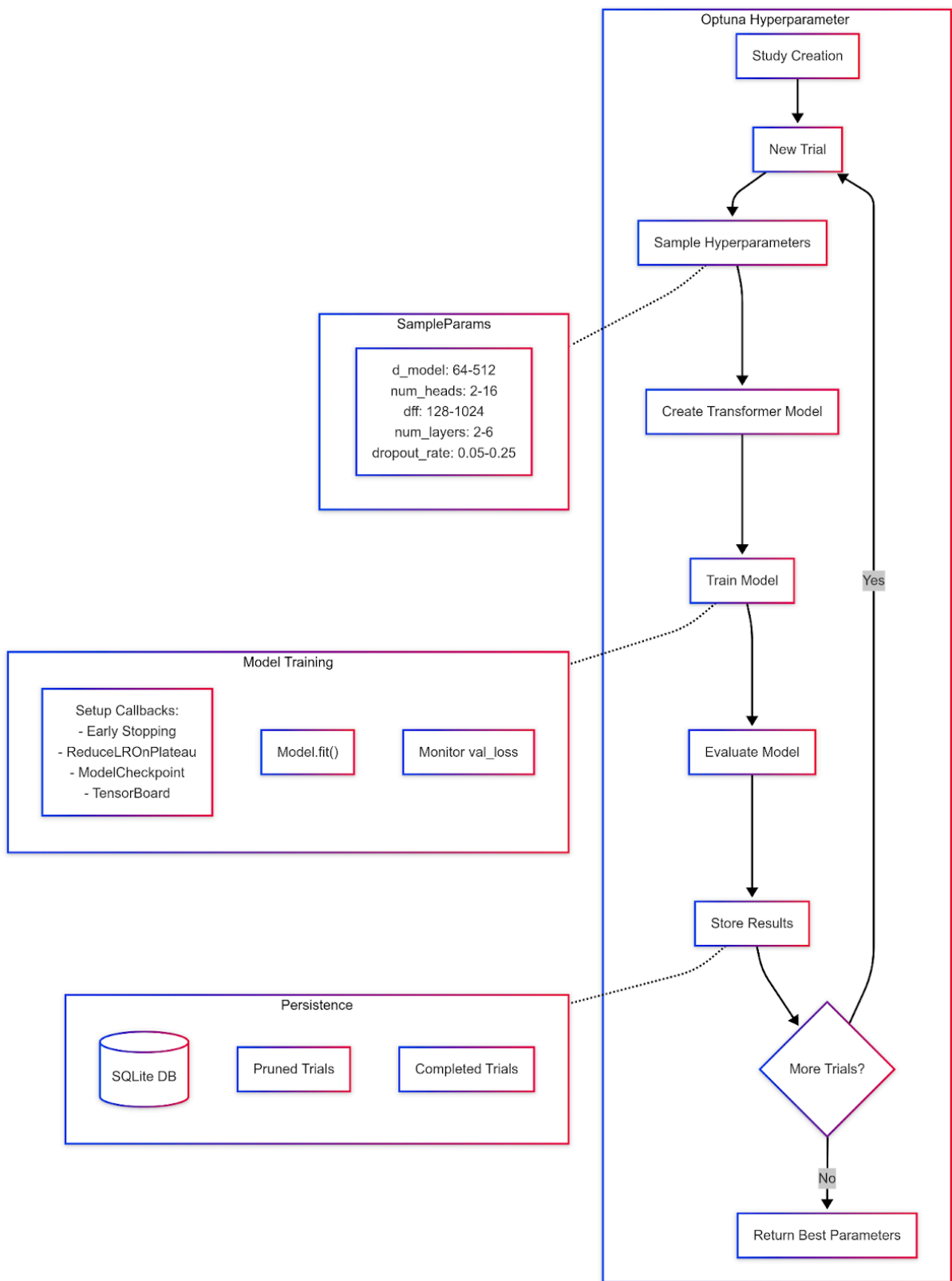
Features Selection by Importance and Correlations



Cyclic Encoding For Periodical Features







Adaptive Search

Early Stopping with Pruning

Optimization & Sampling Strategies

Supports Conditional Hyperparameters