There are several Python libraries and tools that can help you automatically determine the best machine learning model and find the right parameters for your data frame. Some popular ones include:

1. **AutoML Libraries**:
   * **TPOT (Tree-based Pipeline Optimization Tool)**: TPOT is an automated machine learning tool that optimizes machine learning pipelines using genetic programming. It searches for the best preprocessing techniques, feature selection, and models for your data.
   * **Auto-sklearn**: This is an automated machine learning toolkit based on scikit-learn. It automatically searches for the best preprocessing steps, feature selection, and algorithms to optimize model performance.
   * **H2O AutoML**: H2O's AutoML automates the process of training and tuning a large selection of candidate models. It can handle classification, regression, and clustering tasks.
2. **Hyperparameter Optimization Libraries**:
   * **Hyperopt**: Hyperopt is a Python library for optimizing machine learning model hyperparameters using algorithms such as TPE (Tree-structured Parzen Estimator). It can be integrated with various machine learning libraries like scikit-learn.
   * **Optuna**: Optuna is another hyperparameter optimization framework that uses different algorithms like TPE, random search, and grid search. It is highly customizable and can work with various machine learning frameworks.
   * **BayesianOptimization**: This library provides Bayesian optimization methods for hyperparameter tuning. It is particularly useful for optimizing expensive black-box functions, such as the performance of machine learning models.
3. **Scikit-learn Extensions**:
   * **scikit-optimize**: Scikit-optimize is an extension of scikit-learn that provides Bayesian optimization and other global optimization techniques for hyperparameter tuning. It's easy to use and integrates well with scikit-learn's pipelines.
   * **scikit-learn-deap**: This library combines scikit-learn with the DEAP (Distributed Evolutionary Algorithms in Python) framework for evolutionary algorithms. It can be used for hyperparameter optimization and pipeline optimization.

These tools can help you automate the process of model selection and hyperparameter tuning, saving time and effort in finding the best machine learning model and parameters for your data. Choose the one that best fits your requirements and workflow.