AutoPattern - Unified Data Mining Toolkit

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What is AutoPattern & Why?

AutoPattern is a unified, automated data mining toolkit.

Handles the entire pipeline in one system:

- Preprocessing
- Task & algorithm selection
- Modeling & visualization

Motivation:-

Traditional workflows are fragmented and require many manual decisions, making data mining slow and difficult, especially for new users.

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Who Struggles & Our Solution

Who struggles?

Beginners unsure which task or algorithm to use
Advanced users repeating the same preprocessing and setup

Our solution:-

- Automated preprocessing
- Explainable recommendation
- Multiple algorithms & tunable parameters
- Interactive visualizations

Guides users **without forcing decisions**

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System Architecture