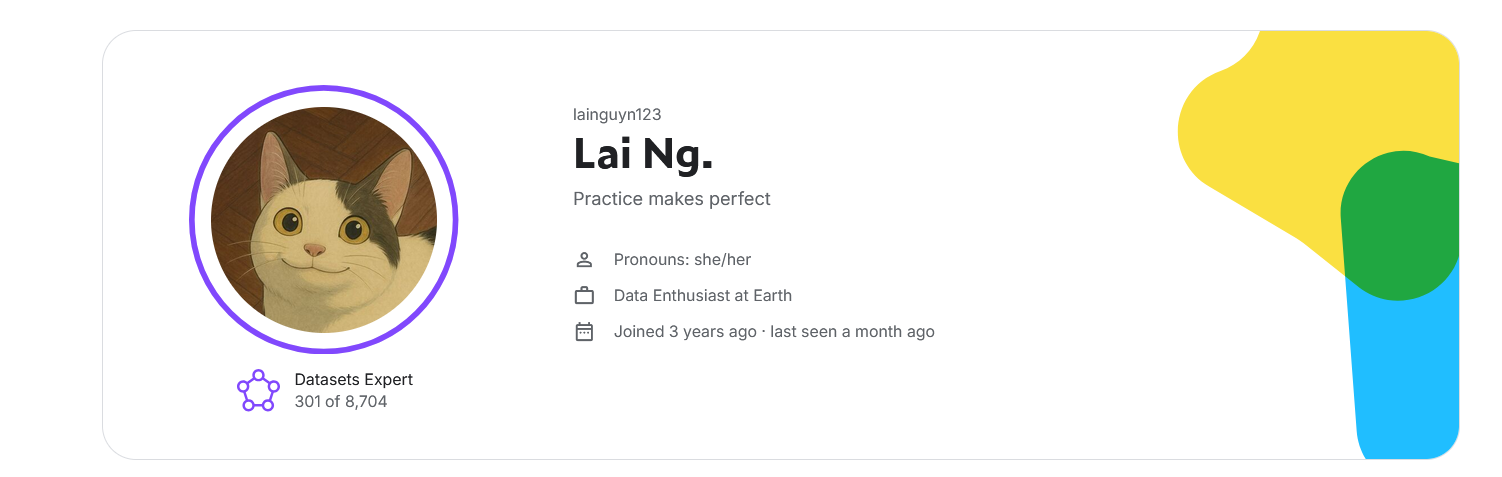
**Documentation of Source:**

[**https://www.kaggle.com/datasets/lainguyn123/student-performance-factors/data**](https://www.kaggle.com/datasets/lainguyn123/student-performance-factors/data)

**Creator of Data Set:**

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The Data is synthetic as it is difficult to source data of this nature in real time from schools

**Statement of Justification:**

The relevance of this dataset is underscored by the increasing focus on educational outcomes in both research and policy-making. Factors such as parental involvement and resource availability are known to significantly influence student achievement, and this dataset allows for a nuanced examination of these relationships. For instance, parents’ educational levels and their involvement can greatly affect a child’s motivation and performance, making it essential to understand how these dynamics work in practice.

Moreover, the dataset includes various categorical and numerical variables, such as the number of hours studied per week and the average sleep hours, which provide opportunities for detailed analysis. Understanding the interplay between study habits, physical activity, and academic performance can yield insights that are not only academically interesting but also practically valuable for educators and policymakers.

By addressing the complexities of student performance through this dataset, the analysis can lead to actionable insights that inform educational strategies and interventions. Ultimately, this dataset serves as a vital tool for exploring the intricate factors that contribute to academic success, highlighting the importance of holistic approaches in enhancing student outcomes. Through rigorous analysis, this project aims to uncover patterns and relationships that could guide future educational practices and policies.

Table: Data Feature Overview

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| | **Attribute** | **Description** | | --- | --- | | **Hours\_Studied** | Number of hours spent studying per week. | | **Attendance** | Percentage of classes attended. | | **Parental\_Involvement** | Level of parental involvement in the student's education (Low, Medium, High). | | **Access\_to\_Resources** | Availability of educational resources (Low, Medium, High). | | **Extracurricular\_Activities** | Participation in extracurricular activities (Yes, No). | | **Sleep\_Hours** | Average number of hours of sleep per night. | | **Previous\_Scores** | Scores from previous exams. | | **Motivation\_Level** | Student's level of motivation (Low, Medium, High). | | **Internet\_Access** | Availability of internet access (Yes, No). | | **Tutoring\_Sessions** | Number of tutoring sessions attended per month. | | **Family\_Income** | Family income level (Low, Medium, High). | | **Teacher\_Quality** | Quality of the teachers (Low, Medium, High). | | **School\_Type** | Type of school attended (Public, Private). | | **Peer\_Influence** | Influence of peers on academic performance (Positive, Neutral, Negative). | | **Physical\_Activity** | Average number of hours of physical activity per week. | | **Learning\_Disabilities** | Presence of learning disabilities (Yes, No). | | **Parental\_Education\_Level** | Highest education level of parents (High School, College, Postgraduate). | | **Distance\_from\_Home** | Distance from home to school (Near, Moderate, Far). | | **Gender** | Gender of the student (Male, Female). | | **Exam\_Score** | Final exam score. | |
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