**Final Project Proposal**

For the final project, I want to analyze the wind power generation data from Kaggle. This dataset compiles field-based meteorological observations and power generation metrics, gathered directly from an operational wind farm site over the period from January 1, 2017, to December 31, 2021. I’ll be focusing on data from location site 1, which includes 10 key parameters: Time, Temperature at 2m, Relative Humidity at 2m, Dewpoint at 2m, Wind Speed at 10m, Wind Speed at 100m, Wind Direction at 10m, Wind Direction at 100m, Wind Gusts at 10m, and Power (normalized between 0 and 1, representing the percentage of maximum potential output).

I'm interested in this dataset for its potential to inform predictive models of power generation and evaluate environmental impacts on renewable energy sources. This analysis could provide insights into optimizing wind farm operations and improving efficiency. I plan to examine seasonal effects on power generation (e.g., variations between summer and winter) and analyze the influence of other environmental factors on Power beyond just time.

https://www.kaggle.com/datasets/mubashirrahim/wind-power-generation-data-forecasting?resource=download&select=Location1.csv