

# Comparing Regression Models for Predicting Flu Outbreaks Using Google Search Trends

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## Description

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In this project, we analyze the relationship between Google search trends for flu-related terms and actual reported flu cases. Using data from Google Trends and CDC FluView, we will fit and compare linear (first-degree), quadratic (second-degree), and cubic (third-degree) regression models to determine which best predicts flu outbreaks.

Our analysis will focus on comparing  $R^2$  values and residuals to evaluate model accuracy and potential overfitting. By splitting tasks, one team member will focus on data collection and preprocessing, while the other will work on model implementation and analysis. Together, we will interpret the results and present key findings.