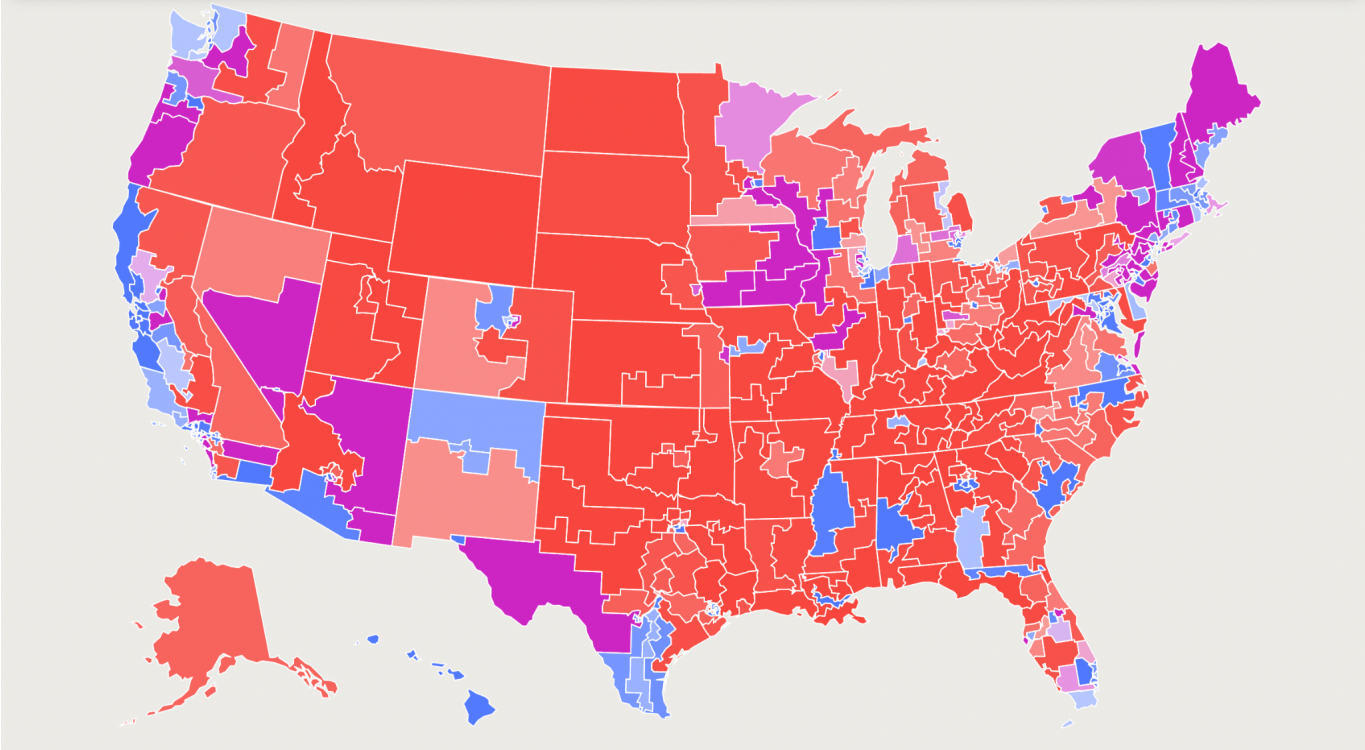
Identifying the Severity of Gerrymandering in the United States

Jillian Barta, DS 4002 CS2, December 4th, 2023



Scenario: You are a 2nd year at UVA and Presidential elections are coming up. Your professor is concerned with the fairness of elections and wants the class to determine whether or not the states are fairly drawing their district boundaries. Since gerrymandering often involves subtle manipulations in district configurations, data science techniques can uncover hidden patterns and anomalies, revealing instances of gerrymandering that are not always visible to the naked eye. Your professor states that the objective and quantitative analysis of electoral district boundaries can help in advocating for electoral reforms and policy changes to promote equitable representation.

Deliverable: Develop a model that predicts the presence and severity of gerrymandering occurring within the 50 states of the United States. From here, identify the most gerrymandered state and the least gerrymandered state. Two sources are provided to you that capture the district boundaries and partisan lean of each state. Finally, provide a short paragraph that summarizes your findings, including an explanation of your model. Submit all code, additional materials, and summary into a Github repository to present to your peers.