

Admissions Under the Microscope: Did COVID-19 Change College Applications Forever?

A Data Science Case Study for Future Analysts

You're a data science analyst at a major university consulting firm. Your client wants to know: **How has the college admissions landscape truly shifted over the last decade?** Specifically, they've heard rumors that standardized testing (SAT/ACT) is dying, and "holistic" criteria like essays and recommendations are gaining importance—especially after the COVID-19 pandemic. They need a statistically rigorous answer to inform their strategy.

The data is waiting! You'll work with the U.S. Department of Education's **IPEDS data** on hundreds of universities from 2014 to 2023. Your mission is to use **logistic regression** to separate general trends from the *structural shift* caused by the pandemic.

- **Scenario:** You need to quantify the "COVID-shift effect" on admissions criteria.
- **Your Mission:** Build a model to predict whether a university uses a specific admissions criterion (e.g., requires the SAT) based on the year and institutional characteristics (like public/private status and region).
- **The Deliverable:** You will produce a **final analysis report** that includes a validated logit regression model with an **Area Under the ROC Curve (AUC) greater than 0.75**, and visualizations that clearly show the statistically significant shifts in admissions factors that occurred after 2020.

Are you ready to use real-world data and advanced modeling to settle the debate on the future of college admissions?

Begin your analysis here: [Link to GitHub Repository:
<https://github.com/Ceerogreen/DS4002CS3>]