Lecture 14

Diagnostics and checking assumptions

1. Empirical log means / empirical logit / scatterplots. Apply any transformations needed

2. Fit the model

3. (Quantile) residual plots. Apply any transformations needed

4. VIFs and Cook's distance. Consider removing/modifying variables or observations

5. GOF tests (if applicable)

What if assumptions are violated?

- Fix any shape violations first

- Then address distributional violations

  - Robust variance estimates

  - Use a different distribution/model for the response

Recap: maximum likelihood asymptotics

Maximum likelihood with mis-specified models

Class activity

https://sta712-f23.github.io/class_activities/ca_lecture_14.html