



# Honors Research Presentation in Data Science

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A Study of Generalized and Vector Generalized Linear Models

In many real-life applications, modeling using the classical linear modeling paradigm (CLM) will not suffice due to violations of its requirements, namely that the response variable has a conditionally Normal distribution. When this requirement is not met, one usually opts for using a generalized linear model (GLM). GLMs require that the response variable has a conditional distribution in the exponential family of distributions. Should this requirement also be violated, we can perform an extension of the GLM— a vector generalized linear model (VGLM).

In this paper, we will discuss some of the key similarities and differences between these modeling paradigms by comparing the models in R with a data set and studying the mathematical foundation of CLM, GLM, and VGLM.

When/Where

- Monday, May 15, 2023 at 4:00 – 5:00pm
- SMC A-206