

Eli Grosman

Through the SPA DRP I was fortunate to have an opportunity to learn from Kristof Glauninger, a PhD student in the statistics department. Our project was originally titled "Nonparametric Regression," but instead of being thrown in the deep end with complicated nonparametric models, Kristof helped me become familiar with various linear models so I could compare them against nonparametric results. Additionally, my assignments had me practicing variable selection, cross validation, and dimension reduction techniques all of which are extremely useful in both parametric and nonparametric settings.

My final project compared different methods on the Boston housing dataset, a popular dataset used to practice different statistical models. The results showed how applying a nonparametric model (kernel regression) to data transformed by a dimension reduction technique (principal component analysis) gave different results than simply applying kernel regression or multiple linear regression to non transformed data.