STAT 517 – Literature Review Critique

Gavin Whitesitt: Don’t Put Yourself in a Box

Reviewed by Ryan Heiderman

Length of Paper

This 33 page paper was published in 2001 by Leo Breiman, and had two parts to it. The first half was the authors telling of the two cultures of statistical modeling and his experiences with each, the latter half were responses and comments from other statisticians on Breiman’s points, and the paper was closed out with a response from the original author to the comments. It is an interesting paper in that it is a perspective of the culture of models and algorithms and the approach of statisticians by Breiman who has spent time in and out of academia. He covers many topics and injects his philosophy and ethical feelings regarding the use of statistics. Gavin does a good job at giving a brief overview of the many topics of this paper and gets at the main points.

Depth of Understanding

It was an interesting review of Gavin’s paper and presentation because the paper topic wasn’t of a particular problem with a statistical solution, but more of a story about statistical theory. This paper covered many topics and was a history lesson as well as an ethical one, with Breiman’s personal experiences and feelings interjected throughout. With so many topics covered, I think Gavin did a good job at boiling down some of the main points.

Difficulty

While this paper didn’t dive into the particular application of a specific problem or statistical model, it did cover many topics. Reading the paper there was a lot to take in but it was an interesting read. Considering STAT 517 coursework, this paper followed along with the building of models and algorithms that we covered in class.

Comprehensiveness

I think Gavin did a good job explaining Breimans background and what led him to some of his thoughts. He covers the stats models section well and also covers the three concepts of Rashomon, Occam and Bellman good. I think he could have gone over the algorithmic approaches a bit more. Beiman goes on a lengthy discussion about decision trees and forests which wasn’t covered in Gavin’s review.

Clarity

I thought Gavin’s review was a good overview of a paper full of different topics, but the overarching theme was covered. That is Breiman’s discussion of models versus algorithms, and the application of each to problems. I think he breaks down a few of his major points well, and his review clearly demonstrates an understanding of these points.

Presentation

I thought Gavin’s presentation was strong in that it was interesting, the powerpoint was appealing to look at and given the topic covered was so broad he did a good job of hitting some of the main points and portraying the arguments of Breiman. The memes were well executed.