This article expounded upon the use of data mining techniques to study the academic performance of undergraduate students in university. More specifically, this paper studied the student’s academic achievement and their typical progressions, with two samples of interest being studied: low-achieving and high-achieving students. From their study, essentially they have used these techniques to focus on a small contingent of courses to extrapolate general good or poor performance to relay feedback to students as needed. Specifically, the researchers used Naïve Bayes, Random Forests with the Gini Index and K Nearest Neighbor (1 neighbor derivative) as the best classifier for performance.

I had several questions about this paper, such as why the authors vehemently advanced these methods to interpret the data, where they leave a disclaimer where the classifiers are not interpretable for humans, as it is impossible to determine which particular courses impact the prediction.

-----------------------------

Good evening Neeraj. Excellent analysis on the paper. Quite frankly, I was expecting more out of the researchers’ findings, as the result from the study (initial grades are statistically significant in the performance of a student in their later years) is quite intuitive and doesn’t have a strong justification as to why it needs to be backed by additional study.

-----------------------------

Good evening Yongbaek. Excellent analysis on the paper. I agree that there may be some errors in using grades from the first and second years in university, but the intent of the researchers was that this was an intuitive and statistically significant factor in extrapolating future performance. This does not preclude the possibility that a student may improve. This study is certainly not all-encapsulating as the data necessary for such an extensive calculation is either impractical to gather or impossible to analyze with conventional statistical methods, such as the impact of impulsive decisions on academic performance