Graduate Admission using Algorithm

The model that I am discussing here considers the following features for one's admission in the graduate school:

1. GRE Score
2. TOEFL Score
3. University Rating
4. SOP (Statement of Purpose)
5. LOR (Letter of Recommendation)
6. CGPA (Undergraduate GPA)
7. Research (Whether someone has a research experience in the past)

Yes, I think the variables here are well correlated with each other, though not all. As we can see from the correlation plot, the GRE Score and the TOEFL Score is positively correlated, meaning that the higher the GRE Score, the higher the TOEFL Score. This relationship can also be seen for GRE Score and CGPA, and TOEFL Score and CGPA. Among GRE Score, TOEFL Score and CGPA, it is CGPA that has the highest correlation to Chance of Admit, so we can remove the GRE Score and TOEFL Score column. It can also be seen that CGPA doesn't have high correlation with SOP and LOR. Also, we can see from the Forest feature importance plot, CGPA has the highest feature importance to predict the chance of admission, while the Research experience score has the lowest feature importance. This indicates that using the CGPA score alone can predict the chance of admission.

AI Ethics

This is not the right way to judge an application for graduate admission. Suppose a brilliant in research candidate gets nervous in a 4-hours exam and could not score well. Should that be a criteria for making his application more likely to be accepted for grad school? NO! Therefore, it is not a perfect algorithm to judge an application to grad school.

To improve the system or model, we can make use of neural networks but that won't be 1oo % reliable either. Here comes the bad/unreliable side of AI in such models.