

Classifier performance analysis through H-1B visa certification status classification

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In 2019, US Citizenship and Immigration Services (USCIS) updated the H-1B application process. The new policy moves the H-1B lottery before the submission of the complete application. Therefore, the application certification status is more important since it becomes the final step before getting the visa. This paper explores the previous H-1B Application Dataset to find the patterns between applicants' information and their certification status. The paper demonstrates the correlations between several key features and the certification status. Moreover, it explores seven common classification models, analyzes the performance of each model according to the H-1B dataset, and integrates models in a specified way to achieve a 91% accuracy and 99% precision.