

ABSTRACT

Telkom University is one of the largest private universities in Indonesia, with 7 faculties and 52 majors. In the selection process for prospective students, Telkom University's Admissions rarely involves direct participation from the specific academic programs. This may lead to the possibility of selecting students who may not be the best fit for their chosen majors. On the other hand, choosing the right major is crucial for prospective students as they will be studying subjects within that major throughout their academic journey. If not followed closely, it could negatively impact their future careers. The Bachelor of Information Systems program is chosen as the recommended major for this final project due to its alignment with the author's background in the Information Systems field. This ensures relevance when making recommendations for the suitability of prospective students for the Bachelor of Information Systems program at Telkom University. A recommendation system using the random forest algorithm will be built, utilizing attributes such as talents, high school grades, and university grades of Bachelor of Information Systems students. This system aims to provide recommendations for the compatibility of prospective students with the Bachelor of Information Systems program at Telkom University, assisting Telkom University's Admissions in selecting suitable candidates. The data used for this study comprises 350 samples of Bachelor of Information Systems students at Telkom University from the academic year 2019-2020. The recommendation system will be implemented using the Python framework called Streamlit. The research findings indicate that the random forest algorithm is the most effective in constructing the recommendation system using talent and high school grades as attributes for prospective students. Consequently, this final project proposes a solution to the challenges faced by Telkom University's Admissions and prospective students in the Bachelor of Information Systems program.

Keyword: selection of prospective students, major recommendation system, random forest