*Student’s Performance Analysis using Machine Learning*

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*Abstract*— *One of the most important activities at academic institutions is student placement. Placements are basically what determine admission and the name of establishments. Because of this, all institutions work to improve their placement department. The primary goal of this essay is to examine historical student data from prior years, forecast placement opportunities for current students, and provide assistance in raising institutions' placement rates. The recommendation method described in this paper forecasts whether the current student will be put or not. If the student is placed, the company is also forecasted based on information from students who have already been placed. Here, we employ the Naive Bayes Classifier and the K Nearest Neighbors [KNN] algorithm, two distinct machine learning classification algorithms. These algorithms each independently forecast the outcomes, and we compare the algorithms' efficacy based on the dataset. With the use of this model, a company's position cell can identify potential students and focus on enhancing their technical and interpersonal abilities.*

Keywords— Data science, Classification Techniques, Machine learning, decision tree, k nearest neighbor.

# Introduction (*Heading 1*)

The Training and Placement activity in college is a critical aspect of a student's academic life. Therefore, it is essential to have a streamlined process so that students can access the required information as and when needed. A good system would enable the staff of the Training and Placement cell to update students quickly and efficiently, thereby reducing their workload. The "College Placement Prediction using Machine Learning" system is designed to address the problems associated with manual systems. This software aims to eliminate or reduce the hardships faced by the existing system and make operations more effective and efficient for companies. Campus recruitment is an effective method for companies to identify talented and qualified professionals before they complete their education. Therefore, it is crucial for organizations to manage the information of training, placement, placement cells, and technical skills. Our system is designed to cater to the specific training needs of each organization, and our remote access feature allows you to manage your workforce anytime and anywhere. Predicting the placement status of final year engineering students will help students work harder and make appropriate progress. It will also help faculty and placement cells to provide proper care towards the improvement of students during the course. A high placement rate is vital to building the reputation of an educational institution. Therefore, this system is of significant importance to the educational system of any higher learning institution.

We use KNN algorithm to predict student performance based on their previous end semester exam marks and high school/secondary exam percentages. This helps us analyze student performance accurately.

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*a**b* 

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* In American English, commas, semicolons, periods, question and exclamation marks are located within quotation marks only when a complete thought or name is cited, such as a title or full quotation. When quotation marks are used, instead of a bold or italic typeface, to highlight a word or phrase, punctuation should appear outside of the quotation marks. A parenthetical phrase or statement at the end of a sentence is punctuated outside of the closing parenthesis (like this). (A parenthetical sentence is punctuated within the parentheses.)
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Component heads identify the different components of your paper and are not topically subordinate to each other. Examples include Acknowledgments and References and, for these, the correct style to use is “Heading 5”. Use “figure caption” for your Figure captions, and “table head” for your table title. Run-in heads, such as “Abstract”, will require you to apply a style (in this case, italic) in addition to the style provided by the drop down menu to differentiate the head from the text.

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1. Table Type Styles

| Table Head | Table Column Head | | |
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| Table column subhead | Subhead | Subhead |
| copy | More table copya |  |  |

1. Sample of a Table footnote. (*Table footnote*)
2. Example of a figure caption. (*figure caption*)

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##### Acknowledgment *(Heading 5)*

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##### References

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1. G. Eason, B. Noble, and I. N. Sneddon, “On certain integrals of Lipschitz-Hankel type involving products of Bessel functions,” Phil. Trans. Roy. Soc. London, vol. A247, pp. 529–551, April 1955. *(references)*
2. J. Clerk Maxwell, A Treatise on Electricity and Magnetism, 3rd ed., vol. 2. Oxford: Clarendon, 1892, pp.68–73.
3. I. S. Jacobs and C. P. Bean, “Fine particles, thin films and exchange anisotropy,” in Magnetism, vol. III, G. T. Rado and H. Suhl, Eds. New York: Academic, 1963, pp. 271–350.
4. K. Elissa, “Title of paper if known,” unpublished.
5. R. Nicole, “Title of paper with only first word capitalized,” J. Name Stand. Abbrev., in press.
6. Y. Yorozu, M. Hirano, K. Oka, and Y. Tagawa, “Electron spectroscopy studies on magneto-optical media and plastic substrate interface,” IEEE Transl. J. Magn. Japan, vol. 2, pp. 740–741, August 1987 [Digests 9th Annual Conf. Magnetics Japan, p. 301, 1982].
7. M. Young, The Technical Writer’s Handbook. Mill Valley, CA: University Science, 1989.

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