

Career Guidance Using Data Analytics

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Abstract- *The profession direction is one of the scaffolds between the work advertise and the instructive circle. This article depends on the examination such qualities as viability of structures and strategies for the vocation direction among the understudies toward the start and toward the finish of their instructive period and which are helpful for inspiration of understudies for securing of expert aptitudes amid the whole time of concentrate with the considering the prerequisites of managers to the expert abilities which ought to be controlled by future alumni; analy-sister of the variables that add to the arrangement of understudies' learning about their picked calling; how vocation direction enables understudies to comprehend the social importance and the substance of their picked calling amid the instructive period and how this comprehension adds to the understudies' inspiration to the procurement proficient aptitudes; will the enough of those expert aptitudes that understudies gain in the college for to addresses the issues of the work market or they needs to acquire for extra expert aptitudes, which should be promotion dressed to them ahead of time. This paper encourages them to cover that part of their life and vocation development.*

Keywords- Data Analytics, Machine Learning, Decision Tree Algorithm.

I. INTRODUCTION

Ever wondered how simple it would be, if you could tell about all your interests and credibility and someone presented you with a path crafted just for you, and all you had to do is follow it and take your skills and career to a new height. Here, we present you with a project that takes the past credentials of people and churns it to bring a set of results that has the potential to change their lives in such a way that they couldn't imagine. It shows them a path that has the credibility to change the way they look about their career and let them become more skilful in whatever domain they wish to take their future in.

Information examination advances and strategies are broadly utilized in business enterprises to empower associations to settle on progressively educated business choices and by researchers and analysts to confirm or invalidate logical models, speculations and theories. As a term, information

investigation dominantly alludes to a grouping of uses, from essential business knowledge (BI), detailing and online diagnostic handling (OLAP) to different types of cutting edge investigation. In that sense, it's comparative in nature to business examination.

The basic idea is to make a web portal where we would provide e-counselling to all the engineering students and information about the latest technologies in the market. While stressing on the idea we thought that we would also take the info about the user skills, their interests and provide them with the suggestions to improve their skills and get a powerful growth in their knowledge base. We pondered that, if the scenario is same for all students, why not make a platform for all. Then we took a consideration of the working professionals, home-makers, unemployed. And finally decided to make a single platform for all that will provide a counselling hub for all. A place which will show all the technologies as per their interests, show a path to increase their skills and hence help them get a growth in their career or move towards their passion.

II. IDENTIFY, RESEARCH AND COLLECT IDEA

For this project, we have studied three published papers, which are similar to our field. The three papers which we have studied are: [1] J. A. Cazier and J. A. Green, "Life Coach: Using Big Data and Analytics to Facilitate the Attainment of Life Goals," 2016 49th Hawaii International Conference on System Sciences (HICSS), Koloa, HI, 2016, pp. 1000- 1008. [2] P. D. Schalk, D. P. Wick, P. R. Turner and M. W. Ramsdell, "Predictive assessment of student performance for early strategic guidance," 2011 Frontiers in Education Conference (FIE), Rapid City, SD, 2011, pp. S2H-1-S2H-5 [3] R. Ade and P. R. Deshmukh, "An incremental ensemble of classifiers as a technique for prediction of student's career choice," 2014 First International Conference on Networks & Soft Computing (ICNSC2014), Guntur, 2014, pp. 384-387.

We carefully studied the given paper. From the first paper "Life Coach: Using Big Data and Analytics to Facilitate the attainment of Life Goals" we saw that they were using big data and analytics for helping individuals. According to them big data and analytics are used to for various purposes already.

So they thought why could not use big data and analytics be used for helping individuals. They proposed a conceptual model for focusing on a better world using information system. In the paper, they proposed a system which includes assistance with careers, relations, financial help and happiness. They were taking data from Netflix database which they used for predicting individuals decision. Yet they did not have any proper formula or algorithm to the predict or analysis the data. They just thought of doing it using netflix data. The data from this paper was limited as it consisted only of netflix using data base.

In the second paper, “Predictive assessment of student performance for early strategic guidance” they were using SAT data to predict the performance of students in STEM disciplines. They studied the mathematics performance of students in sAT exams and concluded that the students performance in mathematics was directly related to performance in physics. They used random forest model , they predicted the accuracy of the students. This helped in analysis helped them in careers and better performance in academics. This paper was limited by the data that they did only considered the factors of mathematics and physics, but not other factors like career choices, skills.

In the third paper, “An incremental ensemble of classifiers as a technique for prediction of student’s career choice”- in this paper, student’s marks and results and psychometric test data were used with supervised data mining algorithm to predict student’s career choice. They implemented learning properties for machine learning. The group method proposed in this paper is contrasted and the gradual calculations, with no group idea, for the understudy’s informational index and it was discovered that the proposed calculation gives better exactness.

III. WRITE DOWN YOUR STUDIES AND FINDINGS

We have compared the case studies to determine what are merits and demerits of each paper and how can it be beneficial to us.

Sr.	Papers	Merits	Demerits
1.	Life coach: using big data and analytics to facilitate the attainment of life	Provides assistance and guidance with careers, overall	No emphasis on the strategies that would be used to implement it

	goals. Published : (2016, HICSS)	happiness and well-being	
2.	Predictive assessment of student performance for early strategic guidance. Published : (2011, FIE)	Strong correlation between performance in mathematics & physics courses is shown	Rely heavily on SAT score as well as Maths & Physics courses
3.	An incremental ensemble of classifiers as a technique for prediction of student’s career choice. Published : (2014, ICNSC)	Makes use of mining algorithms on the data in educational systems and use other standard algorithms	Gives high importance to student’s marks and the result of some kind of psychometric tests

Thus, we can make a web portal where we would provide e-counselling to all the engineering students and also information about the latest technologies in the market.

- Our model will be trained well to accurately give the desired output of career choice to the person.
- Our model will be regularly modified to make sure our data is not outdated.

IV. CONCLUSION

This work has mostly been focused on the data analytics methods used in the project. At first, we reviewed the research papers and applications that are nowadays used in similar perspective as ours. There are different applications and sites through which ‘Career Guidance’ is achieved. The method we came up with gave efficient and effective result as we are using data analytics to analyze each case individually and considering all demographics. We are going to focus on implementation part which uses decision tree classifier. During analysis of the project, we faced difficulty in data collection and validation, which have been described in our methodology section. Finally, the results of the implementation of the decision tree algorithm have been successful. The application is now able to suggest career choices to students, professional and even unemployed based on data analysis.

ACKNOWLEDGMENT

Having endured the experience, there were many who helped us in our project and we very much like to thank them all.

We are deeply indebted to our beloved Principal Dr. M. Z. Shaikh and Our Head of Department (HOD) Dr. D. R. Ingle, for giving us this valuable opportunity to do this project and we express our hearty thanks to them for their assistance without which it would have been difficult in finishing this report synopsis successfully.

We also thank our Project Coordinator, Prof. Rahul Patil and our Project Guide Prof. Balkhande Balasaheb W. for helping and advising us during the work and who gave us this opportunity to work on this project on “CAREER GUIDANCE USING DATA ANALYTICS” which also helped us in doing a lot of Research and we came to know about so many new things we are really thankful to all of them.

It is great pleasure to acknowledge the help and suggestion, which we received from the department of computer engineering. We wish to express our profound thanks to all those who helped us in finding information about report. Much moral support and encouragement has provided on numerous occasions by our whole family.

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