

Intelligent Career Guidance System (GuideMe)

Atharv Sharma¹, Bhavik Sharma², Apoorva Shrivastava³, Archika Jain⁴ (Font-Cambria, Bold, Font Size -12)

*Department of Computer Science Engineering, Acropolis Institute of Technology & Research,
R.G.P.V University*

ABSTRACT

Career choice has a pivotal role in college students life planning. In today's world choosing the right career is the toughest decision. Today many students are confused about their future. They do possess some skills, but they are not able to identify their abilities and a proper domain. Different people suggest different career options but at last, the student must select their career. In this project, we have focused on this problem of the student using machine learning. With the help of machine learning, we will help the student to decide which is the best career option and domain for them using different machine learning techniques. The career is decided based on academic information filled by the student. This project will help the student to get directed towards a specific domain as per their skills.

Keywords: python, Php, KNN Algorithm

I. INTRODUCTION

Career direction can be depicted as a prepare through which understudies gotten to be commonplace with different career alternatives, work openings and are arranged for those openings. Career advising is the approach that will permit the understudy to get it his choices, discover his best abilities and get familiar with the world of work in arrange to create choices almost business, instruction and life.

Competition nowadays is intensely increasing day by day. It is as well difficult within the show day to confront the specialized world. To compete and reach the objective of understudies, they have to be arranged and organized from the starting and last stages of their instruction. So, it's critical to never-endingly survey their performance, establish then interface and evaluate how near they're to their objective and survey whether they are within the proper way that coordinates towards their target. This makes a difference them in progressing themselves, persuading themselves to distant better; a much better, a higher, a stronger, an improved">an improved career way on the off chance that their capabilities are not up to the check to reach their objective and pre-evaluate themselves some time recently getting to the career top point.

II. METHODOLOGY

Collection of Data: Data collection is the process of gathering and measuring information from various sources, usually for research or analysis purposes. The collected data can be qualitative or quantitative and can be collected through various methods, including surveys, interviews, observations, experiments.

In our project data from the students of different type like their hobbies, certifications, achievements, rolls liking and disliking so this type of data we are going to collect from the student.

Machine Learning Technology: Machine learning is a very fast technology that everyone is using. India projects have so many algorithms and models that we can use in our project for analysis and prediction of situations. In our project, we use the can algorithm, which is basically the against neighbour algorithm. The K-nearest neighbour algorithm, one of the simplest machine learning algorithms based on the supervise learning technique, stores all the available data in order to classify a new data point based on its similarity.

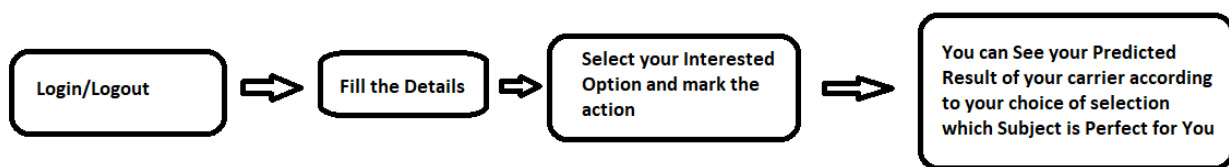
```

75 #print(jobs_dict[predictions[0]])
76 job = {}
77 #job[0] = jobs_dict[predictions[0]]
78 index = 1
79
80
81 data1=predictions[0]
82 print(data1)
83 return render_template("testafter.html",final_res=final_res,job_dict=jobs_dict,job0=data1)
84
85 if __name__ == '__main__':
86     app.run(debug = True)
87

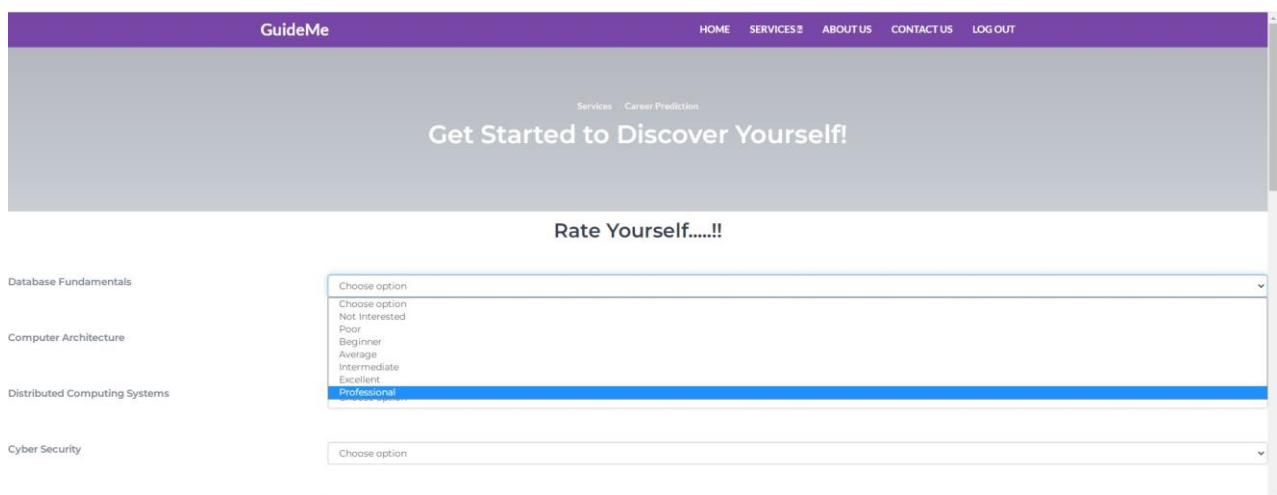
```

Training and Testing Phase: The training and testing phase include so much data feeding to the model that we are going to use in our project .KNN algorithm is very lazy model it takes a data previously but do the classification at the time of situation when we pass the new data set for the prediction.

III. MODELING AND ANALYSIS



Below the image are the options on the left side about various subjects and topics related to technology, and in front of these topics we provide options that include not interested, poor beginner, average intermediate, and excellent.



The screenshot shows the GuideMe web application. The header is purple with navigation links: HOME, SERVICES, ABOUT US, CONTACT US, and LOG OUT. The main content area has a light gray background with the text "Get Started to Discover Yourself!" and "Rate Yourself.....!!". Below this, there is a list of subjects on the left: Database Fundamentals, Computer Architecture, Distributed Computing Systems, and Cyber Security. On the right, there is a dropdown menu for "Choose option" with the following options: Choose option, Not interested, Poor, Beginner, Average, Intermediate, Excellent, and Professional. The "Professional" option is currently selected.

In case: a student named Raj gives all the answers according to his knowledge, he is average in computer architecture, excellent in distributed computer systems, and poor in cyber security, so this option is going to create a prediction of which course Raj is suitable to select according to his liking.

IV. RESULTS AND DISCUSSION

Our project GuideMe is it fulfilling all the requirements of the user that we thought of in the starting phase of the project during the planning about how we were going to use machine learning and what algorithms we were going to use for the correct prediction?

We use the KNN algorithm for the prediction; in this algorithm, we divide the data point according to its nearest neighbour and assign the new data point to the category where the number of the neighbour is maximum.

Because of this, after selecting so many options of good, not good, and excellent in various questions about their hobbies and other activities, such as extracurricular assignments and projects, we model the data and make a prediction, and then we show the result to the user, indicating which course is suitable for them.

V. CONCLUSION

In conclusion, the career guidance project will provide valuable insights and resources for individuals looking to explore and pursue their career aspirations. Through the research and analysis conducted, we have highlighted various career paths and industries, as well as the skills and qualifications needed to succeed in them. We have also discussed the importance of networking, internships, and continued education in the job search process. By utilizing the information provided in this project, individuals can make informed decisions about their career goals and take steps towards achieving them. We hope that this project has been helpful in providing guidance and inspiration for individuals as they navigate their career journey

VI. ACKNOWLEDGEMENTS

We are very thankful to our faculty project coordinator for supporting us during the project, teaching us about various technologies and how to implement machine learning in coding, and helping to make our project successful. We are also thankful to each member of the team, especially those who worked hard to make this project successful.

VII. REFERENCES

- [1] Abisoye Opeyemi A., Alabi I. O., Ganiyu Shefiu O., Abisoye Blessing O, Omokore Josiah, "Web Based Career Guidance Information System for Pre-Tertiary Institution Students in Nigeria ," IEEE-June 2015
- [2] Muhammad Dawood, Amna Arshad, "Career Counselling for Better Future Studies using Machine Learning techniques", July 2018
- [3] JavaTPoint.com for KNN Algorithm
- [4] K. P. A. Menon, "Management of Agriculture and Rural Development Programme: Problems and Prospects, India," *J Extension Education*, vol. 21, no. 1, pp. 94-98, 1985.