



## Life skill and Career Guidance Platform

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### ABSTRACT:

The Career Guidance and Life Skills Platform provide students and job seekers with support to aid them in developing their career planning and precision in obtaining life skill development skills. In many cases, an individual's difficulties locating a career path stem from a lack of guidance, understanding, and/or technical skills. To address these problems, this platform will give users personalized career recommendations that also include life skill development modules. For its implementation, React.js was chosen for the frontend side of the platform's development, Node.js for the backend, and Firebase to manage a secure database. In order to provide recommendations of potential career choices as well as to develop customized career plans for users, Artificial Intelligence, Machine Learning and Natural Language Processing are utilized to assess user interests, skills, past performance in school, and future aspirations [1]. The Life Skill and Career Guidance Platform includes several different life skills learning modules such as communication skills; financial literacy; mental toughness; and time management; all of which provide tools to help users develop their own capabilities both personally and professionally. In addition, users of the platform will interact with an AI-enhanced chatbot that can answer users' questions in real-time in an engaging, easy-to-use format. Overall, the Life Skill and Career Guidance Platform provide a bridge between education and the workforce by combining career counselling and life skill development into one complete solution.

**KEYWORDS:** Career Guidance Platform, Life Skill Development, Artificial Intelligence (AI), Machine Learning (ML), Natural Language Processing (NLP), Personalized Career Recommendation, Career Roadmap Generation, AI Chatbot, Student Skill Analysis, Goal-Based Learning, Communication Skills, Financial Literacy, Mental Resilience, Time Management, Strategic Thinking, Progress Tracking, Educational Analytics, User Authentication, Smart Learning Platform, Career Decision Support System

### I. INTRODUCTION:

Identifying a career path and obtaining the right hands-on experience to support future employment goals is becoming more difficult for today's students and job seekers. Although traditional academic institutions provide instruction in a structured way, many individuals lack the skill sets

required to succeed in all aspects of life. Consequently, as individuals search for career possibilities while having minimal support, they often find themselves suffering from confusion, anxiety, and even fear about their future. Due to the continued and substantial change taking place in the work environment, the use of innovative technology that helps people create their career

plan and grow their other life skills is becoming increasingly necessary.

By collecting and evaluating data about users in relation to interests, prior experiences, skills, and goal-setting; new technological solutions can now generate customized recommendations and learning opportunities based upon the user's specific circumstances. In addition to these advancements in artificial intelligence, web technologies like React.js, Node.js, Firebase facilitate the secure, interactive, and scalable development of efficient real-time user-support systems.

The Life Skill & Career Guidance Platform integrates career advice/assistance with essential life skill training into one cohesive, intelligent system that combines Career Guidance with Essential Life Skill Training so people can have access to career recommendations and personal goals with career roadmaps for achieving goals on a timely basis through AI-powered mentoring and progress tracking features to assist users' decision-making process for their future careers[2]. The platform also provides Life Skills Modules (Communication Skills, Financial Literacy, Mental Resilience, Strategic Thinking, and Time Management) to assist users in both their personal and professional development.

The Platform incorporates analytic dashboards, assessments, and an AI Chatbot that provides users with immediate responses to any of their career or life skill inquiries[3]. These features create engaging and simple-to-use experiences for each user. By delivering advanced technology combined with practical resources to help users, the platform assists to close the gap between formal academic education and current industry requirements.

The overall objective of the proposed Life Skill & Career Guidance Platform is to help simplify the process of career planning while developing essential life skills and providing users with the confidence and knowledge required to excel in today's cut-throat economy.

## II. ALGORITHM:

Define Objectives:

Lay out what this project's really after helping students and job seekers make better career decisions while improving essential life skills

through an intelligent platform. This system uses Artificial Intelligence, Machine Learning, and Natural Language Processing to evaluate user attributes such as interest, abilities, and objectives; develop coaching programs suitable for the individual to help them achieve their goals; develop life skills necessary to be successful when entering the workforce; create individual transitions into the workforce with confidence by providing feedback on an individual's progress toward their objective; and ultimately eliminate or at least significantly reduce the gap between educational performance and actual job performance through intelligent assistance and AI-assisted coaching[4].

Literature Review:

Dig into what's already out there in career guidance platforms, life skill development systems, AI-based recommendation systems, chatbot technologies, and educational analytics. Research studies, books, and conference proceedings regarding the artificial intelligence and machine-learning fields as well as natural-language-processing-related fields to understand how these systems currently provide individuals with career recommendations; personalized learning; and tracking of individual progress in all three areas. This would involve identifying gaps in technology and processes in these areas and finding emerging solutions that will continue to enhance intelligent career guidance and support the development of life skills[7].

Methodology Development:

Create a straightforward outline of a plan to build a Life Skills/Career Guidance Platform. This involves determining how users' interests, abilities, educational background, and future objectives will be used to provide them with personalized recommendations regarding their careers and educational support. AI, ML, and NLP will be utilized for both career predictions, chatbot replies, and pathways. The emphasis of this site will be on creating a safe, user-friendly, and interactive platform; however, consideration should be given to developing dashboards and progress tracking capabilities, allowing the user to view their own personal growth and development in a career[9].

Data Collection:

To build the recommendation engine, we will gather user data like interest, skill, education level, career goal and job interest in order to train and validate the recommendation engine; along with

collecting input from customers regarding their career planning and life skills difficulty experiences. We will collect both quantitative data (e.g., customer satisfaction based on recommendation engine accuracy, chatbot performance, ability to track progress, and amount of engagement by users) and qualitative data (e.g., customer satisfaction, opinion of product) to assess if these methods have been successful in providing career and life skill mentoring opportunities for customers[8].

#### Analysis:

Examine the precision with which the system generates recommendations for careers, as well as how well the chatbot and its features, such as analytics and progression tracking, function together. Identify trends related to user interest, aptitude, and development in order to determine the degree to which this platform has been able to assist with profession enhancement and the acquisition of necessary competencies for everyday living. Also, recognize any possible limitations, for example, if the recommendation is not accurate, whether users have low levels of engagement, or problems exist with performance[10].

#### Findings and Recommendations:

The platform enables users to make better career decisions, develop life skills and monitor their growth. Emphasize the strengths of the system and identify areas that still need improvement. Suggestions to improve AI models, recommendation accuracy, chatbot responses, and user experience to make the platform more effective, interactive, and easy to use.

#### Conclusion:

Summarize the key points on how AI or smart technologies can support better career counselling and life skill development. The platform provides students and those seeking employment with tools necessary to make better choices regarding their careers, develop vital life skills and prepare for real-life situations. They can provide personalized career planning based on AI-enabled recommendations, analytics and mentoring to provide users with more effective career planning and advice. All these components are necessary to make sure the users will continue to find the platform to be reliable, useful and beneficial to them, such as: constantly improving the platform, making sure of the recommendation's accuracy,

offering data security, and having user-friendly designs.

### III. PROPOSED SYSTEM:

#### Personalized Career Recommendation System:

The use of Computer Science technologies (AI, ML, NLP) allows the system to examine users to identify their potential career paths based on their preferences, skills, education, and objectives. By providing users with personalized job recommendations that match their likes and abilities, rather than having them attempt to figure out their future by themselves; you would have access to a virtual career adviser to assist them in making better choices on what actually matters helping students[5].

#### AI Based Roadmap Generation:

Once the right career paths are identified, the system provides personalized roadmaps that guide users step-by-step towards their goals. The roadmaps provide suggested skills, learning paths, certifications and career readiness activities. It helps the users to understand what they need to learn and what they need to achieve for their chosen career.

#### Life Skill Development Modules:

This module contains various life skills to support your personal and professional growth while helping you succeed in everyday life and at work. These modules provide users with the opportunity to develop their communication skills, financial literacy, resilience, strategic thinking, and time management

#### Analytics Dashboard and Progress Tracking:

Interactive dashboards present all user activity and learning development. Users can monitor their course completions, career goals, tests completed, and general advancement on the dashboard. Dashboards help users identify their strengths and weaknesses and how much they have progressed through the dashboard without having to guess as to whether they are improving or getting worse[15].

#### AI Chatbot and Mentoring Support:

With an integrated AI-Powered Chatbot that assists Users with Career and Learning Paths as well as Life Skill Questions through Instant Messaging the Platform also helps Users Find Mentoring and

Guidance. Thus, providing interaction and ease of use by Users.

Secure Data Management and Integration:

Student privacy stays top priority. The system stores all the data securely and makes sure everything stays confidential. It also connects smoothly with other tools schools already use, so there's no need to overhaul existing systems[14].

Conclusion:

The platform offers AI-supported career assistance, including personalized roadmaps, life skills training, an analytics dashboard, and a chatbot to help users navigate their careers effectively. Additionally, the app provides a bridge between what is learned at school and what is needed in today's workforce, leading to simpler, more straightforward, and ultimately more successful career planning.

#### IV.FLOWCHART:

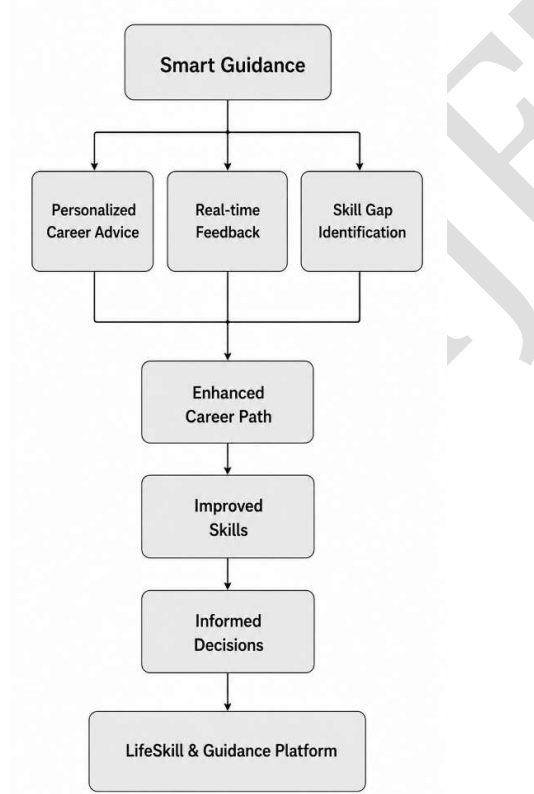


Fig 1

#### V. EXPERIMENTAL RESULT:

We conducted a project that examined if the Life Skill & Career Guidance Platform was effective in providing career decision-making support for students and job seekers, as well as to improve life skills; we focused primarily upon the following aspects of the platforms: how well the platform generates personalized career recommendations, the quality of AI-based customer support via the chatbot, the usefulness of the learning modules, and whether the analytics dashboards provided users with insight into their development/progress towards their goals. We performed multiple experimental studies measuring platform performance, usability, and satisfaction with user experience. Methodology: We started with proof of concept using React.js, Node.js, Google Firebase, Artificial Intelligence (AI), Machine Learning (ML) and Natural Language Processing (NLP). The platform collected information from users on their skills, interests, academic background, career goals and learning styles. The platform analyzed this data and provided job recommendations, a customized path for users to follow, “life skills” content, support via chatbots, and user progress dashboards. User feedback was also obtained to evaluate the perceived value and usability of the platform through real time application[11].

**Experiment 1: Personal Career Path Recommendations:** In our study with our system, we wanted to evaluate how accurately it can recommend job paths based upon the user's expressed interests and values, and education[6].

**Results:** Most of the users agreed that our system provided appropriate career path recommendations based on their expressed interest and requests for assistance. In addition to being generally accurate, most of the users indicated that there were also similarities between the recommendations they received, and their actual interests and long-term goals, when too much information was provided.

**Experiment 2: IAI Chatbot Response and User Interaction :** In our study we measured the efficacy of the AI chatbot's ability to answer customer inquiries regarding career development, skill development, and skills needed for everyday life.

**Results:** Most people who accessed the chatbot when they asked questions got responses very quickly and got the right information. The chatbot users said that they had a fun and engaging

experience with the chatbot company and also said that their communication skills with the chatbot were quite good. It gave me a clear knowledge of career options, how to go about achieving them and also helped me with the Life Skills.

**Experiment 3:** Life Skills Module and Progression Tracking: This research study examined the usage of communication, financial literacy, mental resiliency, strategic thinking, and time management modules to determine their effectiveness for personal and professional development[15].

**Results:** The majority of users who participated indicated that the Life Skills modules were beneficial in aiding their personal as well as professional development. Users also noted that the progress tracking dashboards displayed completed modules, learning progress and degree of improvement effectively so that users could remain focused, motivated, and organized.

**Experiment 4:** User Evaluation of Analytics Dashboard: We evaluated whether the dashboard (as well as how the analytics platforms are designed) would be easy for users to understand and provide users valuable insights to their needs.

**Results:** Users indicated the dashboards were simple, interactive, and visually clear. The dashboards provided users with graphs, progress indicators and analytical reports that helped them rapidly identify their strengths, weaknesses and their overall progress in career development. The overall design of the platform was seamless and user-friendly in how users were able to navigate through the platform.

**Conclusion:** This research indicates that merging AI, ML, analytics dashboards, and individual mentorship has the potential to greatly enhance the process of developing career guidance and life skills. This platform is able to make it easier, more efficient, and more interactive than ever before to develop a career plan and to assist users in developing the necessary preparation for real-life obstacles. Over time, as additional technologies are developed, and the use of AI is fully integrated into this system, the potential effectiveness of this system will continue to improve.

## VI. CONTRIBUTION TO RISK MANAGEMENT:

### Contribution to Risk Management:

The platform supports risk management through assisting students and job-seekers by enabling them create knowledge-based decisions about their career paths and develop years of life skills effectively. The platform utilizes AI, ML, and NLP to provide secure, tailor-made career guidance, while protecting user data and enhancing decision making processes[16].

### Identification User Challenges:

A key function of the platform is to help users discover their challenges in career planning, skills shortages, confidence, communication and time management. By evaluating and analysing user interactions and using assessments, the platform has identified areas of need for users to improve upon and delivered the appropriate development or training programme.

### Assessment Career and Skill Gaps:

Users can utilize the Platform to better visualize the difference between their actual skills and career goals. Using an analysis of the user's interests, educational background, and performance, the platform identifies deficiencies and recommends a specific set of steps to obtain these missing skills through personalized Road Maps, Certification Programs, and Learning Paths to lower the risk and uncertainty of future careers[13].

### Personalized Guidance and Career Support:

Using data from the individual as well as their previous career experiences, the AI-based recommendation engine provides tailored career options for that person. This reduces uncertainty and suggests tailored career paths based on their personal interests, strengths, and opportunities available for future employment, thereby improving the quality of a person's decision to commit to a new job.

### Progress Tracking and Performance Support:

Users will be able to identify their own progress, completed modules, and skills by using the performance dashboard/analytics feature. This assists users in identifying potential areas of development earlier in the learning process, and as a result, they will be able to develop through structured learning and mentoring support.

### Secure Data Management:

Using firebase's authentication and database management systems will securely store user data (career preferences), assessment results and progress information on the platform. Appropriate security systems assist in maintaining user privacy, confidentiality and safe access.

#### AI Chatbot and Continuous Support:

Chatbots offer 24/7 Help Your career & life skill queries can be answered via a chatbot instantly! The chatbot is there to assist you in real time, so you will always get the right answer whenever you ask for assistance; therefore, your chances of receiving incorrect information will also decrease significantly, giving you confidence in yourself and feeling more involved in using the services of a chatbot.

Improved Career Preparation Development: This platform helps users enhance their ability to prepare themselves for success by improving their communication skills, financial value, strategic thinking, mental toughness, and time management. These types of skills make individuals less vulnerable to risk from either personal or professional issues by empowering the users to adapt quickly to the conditions they face in their work or their careers[12].

#### VII. CONCLUSION:

The Life Skills and Career Guidance Platform play a pivotal role in managing risk by providing users with better career decisions, assisting in identifying their skill gaps and improving their life-skills while keeping track of their growth in a safe manner. This was accomplished by combining AI technologies, analytics and secure data management with a personalized mentoring component to create a smarter, safer and more effective method of providing career guidance and personal development.

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