



# CAREER GUIDANCE AND SKILL MAPPING PLATFORM

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**Abstract:** The increasing complexity of modern career pathways and the rapid evolution of industry requirements have created a significant need for intelligent career guidance systems. This paper presents a Career Guidance and Skill Mapping Platform, a comprehensive solution designed to assist students, graduates, and job seekers in identifying suitable career opportunities based on their interests, skills, educational background, and professional aspirations. The platform utilizes skill assessment and career recommendation techniques to analyze user profiles and match them with relevant career domains.

**Index Terms** - Career Guidance, Skill Mapping, Career Recommendation System, Skill Gap Analysis, Employability Enhancement, MERN Stack, Student Career Planning, Learning Resources.

## I. INTRODUCTION

The Career Guidance and Skill Mapping Platform is designed to help students and job seekers identify suitable career paths based on their interests, skills, and qualifications. It analyzes skill gaps and provides personalized recommendations for learning and career development to improve employability and professional growth.

## II. OBJECTIVES

The primary objective of the Career Guidance and Skill Mapping Platform is to assess the skills, interests, and qualifications of users to better understand their strengths and career aspirations. Based on this analysis, the platform recommends suitable career paths that align with the user's abilities and goals. It also identifies skill gaps by comparing the user's current competencies with the requirements of their desired career, enabling targeted skill development. Furthermore, the system suggests relevant courses, certifications, and learning resources to help users enhance their knowledge and improve employability. The platform is designed with a user-friendly interface to ensure easy access, effective career planning, and a seamless user experience.

## III. PROBLEM STATEMENT

Many students lack proper career guidance and awareness about industry requirements. Traditional counseling methods are often time-consuming and inaccessible. There is a need for an intelligent platform that can analyze individual skills and provide personalized career recommendations along with skill development suggestions.

## IV. PROPOSED SYSTEM

The proposed system allows users to:

1. Create and manage profiles.
2. Take skill assessment tests.
3. View career recommendations.
4. Identify missing skills for target careers.
5. Access learning resources and certification suggestions.
6. Track skill development progress.

## V. METHODOLOGY

- User Registration and Login.
- Skill and Interest Assessment.
- Data Processing and Skill Analysis.
- Career Mapping and Recommendation.
- Skill Gap Identification.
- Course and Resource Recommendation.
- Progress Monitoring and Feedback.

## VI. TECHNOLOGY USED

### Frontend:

- HTML
- CSS
- JavaScript
- React.js

### Backend:

- Node.js
- Express.js

### Database:

- MongoDB

### Development Stack:

- MERN Stack (MongoDB, Express.js, React.js, Node.js)

## VII. MODULES

### 1. User Management Module

Handles registration, login, and profile management.

### 2. Skill Assessment Module

Conducts assessments and evaluates user skills.

### 3. Career Recommendation Module

Suggests career paths based on skill analysis.

### 4. Skill Gap Analysis Module

Compares user skills with industry requirements.

### 5. Learning Resource Module

Recommends courses, certifications, and training programs.

## 6. Admin Module

Manages users, career data, and platform content.

## VIII. ADVANTAGES

- Personalized career guidance.
- Easy identification of skill gaps.
- Improved career decision-making.
- Access to learning recommendations.
- Supports continuous skill develop

## XI. CONCLUSION

The Career Guidance and Skill Mapping Platform provides an effective solution for career planning and skill development. By analyzing user skills and matching them with career opportunities, the platform helps individuals make informed career decisions and improve their employability in a competitive job market.

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