

Personalized Career Guidance System for Students

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Abstract: *Today, career confusion and misguidance are major challenges faced by students, leading to incorrect career choices and dissatisfaction. The proposed model addresses this issue through Machine Learning, Psychometric Analysis, and Activity-Based Assessments. By integrating interactive tasks and gamified elements, the system provides an engaging and immersive career evaluation experience. Machine learning algorithms analyze responses, identify behavioral patterns, and generate personalized career recommendations. Unlike traditional assessments, which rely solely on static questionnaires, this system adapts dynamically to user inputs, ensuring accurate insights. The tool offers data-driven career guidance to students, parents, and educators, helping them make informed decisions. Various career counseling methods focus only on aptitude tests, but our approach considers cognitive abilities, personality traits, and real-world problem-solving skills. This results in enhanced career alignment and increased satisfaction, ultimately guiding students toward professions where they can thrive.*

Keywords: Machine Learning, Psychometric Analysis, Career Guidance, Gamification, Behavioral Analysis