

## AI-POWERED CAREER GUIDANCE SYSTEM FOR SCHOOL STUDENTS.

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**Abstract**—Effective career guidance is essential for students, yet many are constrained by limited resources and generic counseling methods. This paper introduces an AI-powered Career Guidance System that leverages machine learning and psychometric analysis—specifically utilizing the Big Five personality traits—to provide personalized career recommendations. By integrating multi-source data, including academic performance, psychometric test results, and self-reported interests, the system builds a comprehensive student profile. A dedicated module uses the Big Five model to analyze personality and refine career predictions, while supervised learning techniques predict appropriate career paths. Comparative analysis with existing approaches [1], [2] demonstrates that our system achieves superior accuracy and enhanced user satisfaction. The paper concludes with an overview of the system’s implementation, emphasizing its practical deployment, and discusses potential directions for future work.

**Keywords**—Career Guidance, Artificial Intelligence, Big Five Personality Traits, Psychometric Analysis, Machine Learning, Educational Technology