

# EduBuddy: An AI-Powered Learning and Career Assistant for Students

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**Abstract:** *In the modern digital era, students often face challenges in accessing reliable learning resources and receiving proper career guidance due to the vast availability of information and lack of personalized support. To address these issues, this paper presents EduBuddy, an AI-powered learning and career assistant designed to provide integrated academic support and career recommendations through a single platform. The system leverages Artificial Intelligence (AI), Natural Language Processing (NLP), and machine learning techniques to understand user queries and generate meaningful responses in real time. EduBuddy offers multiple functionalities, including an AI-based chat assistant, smart study planner, course recommendation system, resume analyzer, profile review, job fit analysis, and mock interview module. The system is developed using modern technologies such as React, TypeScript, Firebase, and Google Generative AI tools, ensuring scalability, efficiency, and user-friendly interaction. It also incorporates personalization features by analyzing user inputs, preferences, and behavior to provide customized suggestions. The results demonstrate that EduBuddy effectively enhances student learning and decision-making by offering real-time assistance and structured guidance. Although the system has certain limitations, such as dependency on data quality and internet connectivity, it shows strong potential in improving educational support systems. Overall, EduBuddy serves as a comprehensive and intelligent solution that bridges the gap between learning and career development.*

**Keywords:** Artificial Intelligence, Generative AI, Natural Language Processing, Intelligent Tutoring System

