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### Review Report

## AI-powered resume screening for candidates

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### ABSTRACT

Recruitment forms the foundation of organizational success, especially in competitive markets where identifying the right candidate directly influences growth and productivity. However, traditional hiring processes often struggle to efficiently handle large volumes of applications and maintain objectivity. This study presents an **AI-enabled Candidate Resume Screening System** designed to enhance the decision-making capabilities of recruitment professionals. The system processes historical hiring data, job descriptions, and applicant resumes generating intelligent screening recommendations. By leveraging Natural Language Processing (NLP) and machine learning algorithms—such as Logistic Regression, Random Forest, and transformer-based models—the system evaluates candidate profiles and ranks them based on relevance to job roles. The solution is implemented through a user-friendly web interface, ensuring accessibility for users with varying levels of technical expertise. By promoting data-driven recruitment practices, the system aims to streamline the hiring process, minimize human bias, and improve the overall efficiency of talent acquisition.

**Key Words:** Resume Screening, Artificial Intelligence, Machine Learning, Natural Language Processing, Talent Acquisition.

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