

Enhancing the Recruitment Process through Machine Learning: An Automated CV Screening System

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Abstract : Human resources is an important department in each organization as it manages the life cycle of employees from recruitment training to retirement or termination of contracts. The recruitment process starts with a job opening, followed by a selection of the best-fit candidates from all applicants. Matching the best profile for a job position requires a manual way of looking at many CVs, which requires hours of work that can sometimes lead to choosing not the best profile. The work presented in this paper aims at reducing the workload of HR personnel by automating the preliminary stages of the candidate screening process, thereby fostering a more streamlined recruitment workflow. This tool introduces an automated system designed to help with the recruitment process by scanning candidates' CVs, extracting pertinent features, and employing machine learning algorithms to decide the most fitting job profile for each candidate. Our work employs natural language processing (NLP) techniques to identify and extract key features from unstructured text extracted from a CV, such as education, work experience, and skills. Subsequently, the system utilizes these features to match candidates with job profiles, leveraging the power of classification algorithms.

Keywords : automated recruitment, candidate screening, machine learning, human resources management

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