AI-Based Resume Screening and Prediction System

Onkar Nirmal Chaudhari and Prof. Leena Patil
Godavari Institute of Management and Research, Jalgoan

Abstract: *The increasing digitization of hiring processes has resulted in a rapid rise in the number of resumes submitted for each job position. Manual screening of these resumes is often slow, inconsistent, and unable to cope with large application volumes. This paper presents an AI-based Resume Screening and Prediction System designed to automatically analyze resume content and recommend a suitable job role using machine learning techniques. The system extracts text from PDF and DOCX resumes, processes the information, and identifies important skills that influence role prediction. A machine-learning model trained using TF-IDF features classifies resumes into job-role categories such as Java Developer, Data Analyst, and Web Developer. The system also includes a simple user interface for candidates and an admin dashboard for HR teams to review and export screening results. Experimental observations show that the model provides stable and reliable predictions across different resume styles. The proposed system demonstrates how automated screening can reduce HR effort, improve the quality of shortlisting, and support faster decision-making in the early stages of recruitment.*

Keywords*: Recruitment.*