INFORMATICS INSTITUTE OF TECHNOLOGY

In Collaboration with

UNIVERSITY OF WESTMINSTER

NextHire

Intelligent CV Generation and Job Matching Platform

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Submitted in partial fulfilment of the requirements for the BEng in Software Engineering degree at the University of Westminster.

April 2025

ABSTRACT

The recruitment process is a very time consuming task for both job seekers and recruiters. Traditional methods involve in screening CVs manually which can be prone to errors, biases and inefficiencies. This thesis provides a web solution called NextHire to address these challenges in the recruitment process, this application uses machine learning to automate and enhance the recruitment process. This system uses a Linear Regression model to calculate the similarity between the job seekers CV skills and experience and the job postings to generate a matching score to identify the best candidate for the job role.

This system serves two user groups: job seekers, they can create multiple CVs within the system, browse job postings and apply for jobs; employers can post jobs, review applied applications, and view the matching score to determine the best matching candidate for the job. The model is evaluate using the evaluation metrics such as R^2 Score and Mean Squared Error (MSE) and getting high accuracy R^2 Score of 0.933 and Mean Squared Error (MSE) of 0.0026.

By using machine learning to this system, this system aims to streamline the hiring process to reduce the overall challenges and limitations of traditional recruitment.

Keywords: Recruitment, Machine Learning, Linear Regression, CV Matching, Job Posting, Recruiter.

Subject Descriptors: CV-Job Matching, Machine Learning