*Similarity Analysis of Job Vacancies with Applicant Profiles Using TF-IDF and Cosine Similarity Algorithms*

**Akhmad Nur Hidayatulloh**

*Studi Program of Informatics Engineering*

*Majoring of Information Technology*

## ABSTRACT

*Talent Acquisition (TA) is a type of job that handles the employee recruitment process. The conventional method will take quite a long time, because there are relatively many job candidates taken in one recruitment. Based on the above problems, this research will analyze the process to find the level of similarity between job vacancies and job applicant profiles using the TF-IDF and Cosine Similarity algorithms. In this research, 5 job vacancies in Jobstreet were taken, each with different categories. These categories include Backend Developer, Frontend Developer, UI/UX Designer, Android Developer, and DevOps Engineer. Job applicant data in this study was collected as a total of 100 Linkedin account profiles and divided into 20 accounts for each category. This research obtained the highest results in the second experiment with a threshold of the top 20 ranks, the results were an average precision of 54%, recall 54% and F1-score of 54%. The level of similarity is strongly affected by the length of the data and content in the document, as the quality of the corpus used in the filtering process. The better of the corpus quality, the similarity results significantly increased.*

***Keywords:*** *Jobstreet, Linkedin, Job Vacancy, Applicant, Cosine Similarity*