

INTEGRASI SENTENCE-BERT DAN *SIMPLE ADDITIVE WEIGHTING* UNTUK PERANKINGAN CALON PESERTA PRAKTIK KERJA LAPANGAN PADA PT XYZ

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ABSTRAK

Pengajuan Praktik Kerja Lapangan (PKL) melalui *email* menimbulkan beban administratif tinggi dan menyulitkan pencocokan kandidat dengan kebutuhan unit bisnis saat volume pengajuan besar. Penelitian ini membangun sistem berbasis web yang mengintegrasikan Sentence-BERT dan *Simple Additive Weighting* untuk membantu pencocokan kandidat dengan kebutuhan unit bisnis. Sistem dikembangkan dengan *Agile Scrum* menggunakan Node.js, React.js, dan PostgreSQL. Model paraphrase-multilingual-MiniLM-L12-v2 mengukur kemiripan semantik antara profil kandidat dan deskripsi posisi, sedangkan SAW melakukan perankingan multikriteria berdasarkan skor tersebut, IPK, semester, pengalaman, prestasi, dan sertifikasi. Evaluasi melalui *black-box testing*, *User Acceptance Testing* (UAT), dan *Spearman's Rank Correlation* menunjukkan seluruh skenario pengujian valid, nilai UAT 96% (Human Capital) dan 92% (unit bisnis serta mahasiswa), serta korelasi Spearman 0,762 dan 0,929 yang mengindikasikan kesesuaian yang kuat dengan penilaian unit bisnis. Hasil ini menunjukkan integrasi SBERT dan SAW efektif sebagai sistem pendukung keputusan untuk membantu pencocokan kandidat PKL secara akurat dan efisien.

Kata Kunci: Sentence-BERT, *Simple Additive Weighting*, kesamaan semantik, sistem pendukung keputusan, Praktik Kerja Lapangan

**INTEGRATION OF SENTENCE-BERT AND SIMPLE ADDITIVE
WEIGHTING FOR INTERNSHIP CANDIDATE RANKING
AT PT XYZ**

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ABSTRACT

Internship (Praktik Kerja Lapangan/PKL) applications submitted via email create a high administrative burden and make it difficult to match candidates with the business unit's requirements when application volume is large. This research develops a web-based system integrating Sentence-BERT and Simple Additive Weighting to assist in this matching process. The system was developed using Agile Scrum with Node.js, React.js, and PostgreSQL. The paraphrase-multilingual-MiniLM-L12-v2 model measures semantic similarity between candidate profiles and position descriptions, while SAW performs multi-criteria ranking based on this score, GPA, semester, experience, achievements, and certifications. Evaluation through black-box testing, User Acceptance Testing (UAT), and Spearman's Rank Correlation shows all test scenarios passed, UAT scores of 96% (Human Capital) and 92% (business unit and students), and Spearman correlations of 0.762 and 0.929, indicating strong agreement with the business unit's assessments. These results show that integrating SBERT and SAW is effective as a decision support system for accurate and efficient candidate-internship matching.

Keywords: *Sentence-BERT, Simple Additive Weighting, semantic similarity, decision support system, internship program*