

INTISARI

Layanan alumni di STMIK AMIKOM Surakarta masih dikelola melalui dokumen, *Microsoft Excel*, dan *WhatsApp* sehingga pembaruan data dan penyampaian informasi pascakuliah belum terpusat. Survei awal terhadap 49 alumni menunjukkan bahwa informasi lowongan kerja merupakan layanan yang paling dibutuhkan (67,9%). Penelitian ini bertujuan merancang dan membangun Sistem Informasi Layanan Alumni berbasis *website* yang dilengkapi rekomendasi lowongan kerja menggunakan metode *Content-Based Filtering*. Penelitian menggunakan pendekatan *mixed method* dengan pengumpulan data melalui observasi, wawancara, studi literatur, dan kuesioner, serta analisis PIECES. Sistem dikembangkan dengan metode *Rapid Application Development* menggunakan *Next.js* dan *Supabase*, sedangkan data lowongan kerja dikumpulkan melalui *web scraping*. Rekomendasi dihasilkan melalui pembentukan dokumen profil alumni dan lowongan, *preprocessing* teks, pembobotan TF-IDF, perhitungan *Cosine Similarity*, dan perangkingan. Pengujian *Blackbox* terhadap 58 skenario menunjukkan seluruh skenario valid (100%), dan pengujian *System Usability Scale* menghasilkan skor 82,50 pada admin dan 81,30 pada alumni yang menunjukkan *usability* yang baik. Sistem ini mendukung layanan alumni yang terintegrasi dan menyajikan urutan lowongan kerja berdasarkan kemiripan dengan profil alumni.

Kata kunci: Sistem Informasi Alumni, Rekomendasi Lowongan Kerja, *Content-Based Filtering*, *TF-IDF*, *Cosine Similarity*

ABSTRACT

Alumni services at STMIK AMIKOM Surakarta still rely on documents, Microsoft Excel, and WhatsApp, so alumni data updates and post-graduation information delivery are not centralized. An initial survey of 49 alumni showed that job vacancy information was the most needed service (67.9%). This study aims to design and develop a web-based Alumni Service Information System equipped with job vacancy recommendations using the Content-Based Filtering method. A mixed-method approach was used, with data collected through observation, interviews, literature review, and questionnaires, and the existing services analyzed using PIECES. The system was developed using Rapid Application Development with Next.js and Supabase, while job vacancy data were collected through web scraping. Recommendations are generated by constructing alumni profile and job vacancy documents, text preprocessing, TF-IDF weighting, Cosine Similarity calculation, and ranking. Black-box testing of 58 scenarios produced 58 valid results (100%), and System Usability Scale testing yielded scores of 82.50 for administrators and 81.30 for alumni, indicating good usability. The system supports integrated alumni services and ranks job vacancies according to their similarity to alumni profiles.

Keywords: *Alumni Information System, Job Vacancy Recommendation, Content-Based Filtering, TF-IDF, Cosine Similarity*