

ABSTRAK

Alfin Muzayyinul Azhar, 2026, Sistem Rekomendasi Makan Sehat Menggunakan Pendekatan Hybrid Filtering Berdasarkan Data Nutrisi Dan Preferensi Pengguna. Skripsi. Program Studi Teknik Informatika, Fakultas Teknik, Universitas PGRI Madiun. Pembimbing (I) bapak Saifulloh, S.Kom., M.Kom. Pembimbing (II) bapak Alim Citra Aria Bima, S.Pd., M.Kom.

Penelitian ini mengembangkan sistem rekomendasi makanan yang bersifat personal menggunakan pendekatan *hybrid filtering*, dengan integrasi *Content-Based Filtering* dengan *Weighted Euclidean Distance* dan *Collaborative Filtering* berbasis *Cosine Similarity* menggunakan *Implicit Feedback* sebagai mekanisme skor. Integrasi kedua pendekatan dilakukan dengan menyesuaikan skor rekomendasi dari pengguna yang memiliki kemiripan tinggi. Sistem dikembangkan menggunakan metode *Rapid Application Development (RAD)* dan dievaluasi dengan *Precision*, *Recall*, dan *F1-Score* berbasis Top-N. Hasil pengujian menunjukkan bahwa konfigurasi Top-10 memberikan performa terbaik dengan nilai Precision, Recall, dan F1-score yang seimbang, serta tingkat kelayakan sistem sebesar 96,50%.

Kata Kunci : Sistem Rekomendasi, *Hybrid Filtering*, *Content-Based Filtering*, *Collaborative Filtering*, *Weighted Euclidean Distance*, *Cosine Similarity*.

ABSTRACT

Alfin Muzayyinul Azhar, 2026, *Healthy Eating Recommendation System Using Hybrid Filtering Approach Based on Nutritional Data and User Preferences*. Undergraduate Thesis. Informatics Engineering, Faculty of Engineering, Universitas PGRI Madiun. Advisor (I) Saifulloh, S.Kom., M.Kom. Co-Advisor (II) Alim Citra Aria Bima, S.Pd., M.Kom.

This study develops a personalised meal recommendation system using a hybrid filtering approach, integrating Content-Based Filtering with Weighted Euclidean Distance and Collaborative Filtering based on Cosine Similarity using Implicit Feedback as the scoring mechanism. The integration of the two approaches is conducted by adjusting the recommendation scores according to users with high similarity. The system is developed using Rapid Application Development (RAD) and evaluated using Precision, Recall, and F1-Score in a Top-N framework. The test results indicate that the Top-10 configuration provides the best performance with balanced Precision, Recall, and F1-score values, as well as a system feasibility level of 96.50%.

Keywords : Recommendation System, Hybrid Filtering, Content-Based Filtering, Collaborative Filtering, Weighted Euclidean Distance, Cosine Similarity.