

ABSTRAK

Putra, Maulana Ruhaedi. 2025. Rancang Bangun Sistem Rekomendasi Pemilihan Laptop Berbasis Website Menggunakan Metode Hybrid CF-CBF dengan Pendekatan TF-IDF .Skripsi. Program Studi Teknik Informatika, FT, Universitas PGRI Madiun. Pembimbing (I) Sri Anardani, S.Kom., M.T. (II) Pratiwi Susanti, S.Kom., M.MT.

Dalam era digital, kebutuhan akan perangkat laptop yang sesuai dengan kebutuhan spesifik pengguna menjadi sangat penting. Namun, banyaknya pilihan di pasaran kerap menyulitkan calon pembeli dalam menentukan pilihan terbaik. Untuk mengatasi masalah tersebut, penelitian ini merancang dan membangun sistem rekomendasi pemilihan laptop berbasis website dengan menggunakan metode hybrid yang menggabungkan Collaborative Filtering (CF), Content-Based Filtering (CBF), dan pendekatan Term Frequency-Inverse Document Frequency (TF-IDF). Sistem ini dikembangkan menggunakan framework Laravel dan React JS, serta didukung dengan database MySQL yang diimplementasikan melalui Laragon. Pengumpulan data dilakukan secara daring melalui Google Form, dan hasilnya digunakan untuk membangun model rekomendasi. Sistem diuji menggunakan metode black-box untuk memastikan seluruh fungsionalitas berjalan dengan baik. Hasil dari penelitian menunjukkan bahwa pendekatan hybrid mampu memberikan rekomendasi laptop yang lebih relevan dan sesuai dengan preferensi serta kebutuhan pengguna. Sistem ini diharapkan dapat mempermudah pengguna dalam memilih laptop secara efisien dan efektif.

Kata kunci: Sistem rekomendasi, Hybrid filtering, Collaborative Filtering, Content-Based Filtering, TF-IDF, Laptop.

ABSTRACT

Putra, Maulana Ruhaedi. 2025. *Design and Development of a Web-Based Laptop Recommendation System Using a Hybrid CF-CBF Method with a TF-IDF Approach*. Undergraduate Thesis. Informatics Engineering Study Program, Faculty of Engineering, Universitas PGRI Madiun. Supervisors: (I) Sri Anardani, S.Kom., M.T., (II) Pratiwi Susanti, S.Kom., M.MT.

In the digital era, the need for laptops that meet specific user requirements has become increasingly important. However, the vast number of options available on the market often makes it difficult for potential buyers to choose the most suitable one. To address this issue, this research designs and develops a web-based laptop recommendation system using a hybrid method that combines Collaborative Filtering (CF), Content-Based Filtering (CBF), and the Term Frequency-Inverse Document Frequency (TF-IDF) approach. The system is developed using the Laravel and React JS frameworks and supported by a MySQL database implemented through Laragon. Data collection was conducted online using Google Forms, and the results were used to build the recommendation model. The system was tested using the black-box method to ensure all functionalities worked properly. The results of this study show that the hybrid approach is capable of providing more relevant laptop recommendations that align with user preferences and needs. This system is expected to assist users in choosing laptops more efficiently and effectively.

Keywords: Recommendation system, Hybrid filtering, Collaborative Filtering, Content-Based Filtering, TF-IDF, Laptop.