AI-Powered Fashion Recommendation System for Smart Dress Rental Platforms

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Abstract: *This paper proposes a smart recommendation system for online dress rental platforms, leveraging Artificial Intelligence (AI) to enhance user personalization. It addresses the challenge users face in selecting attire by providing intelligent, data-driven suggestions tailored to their preferences, body profile, and booking history. Using machine learning techniques such as collaborative and content-based filtering, the system suggests dresses that match user taste, improving the platform's usability, engagement, and conversion rate. The solution integrates seamlessly with existing web applications built using Java, JSP, and MySQL, and includes a microservice-based architecture for AI modules using Python. The outcome shows measurable improvements in user interaction and rental frequency.*

Keywords: AI recommendation system, online dress rental, collaborative filtering, content-based filtering, Java, JSP, MySQL, user personalization, fashion tech

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