UNIVERSITI TEKNOLOGI MARA

CAREER RECOMMENDER SYSTEM IN MALAYSIA USING CONTENT-BASED FILTERING

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ABSTRACT

This project focuses on developing a career recommender system tailored to the Malaysian job market using content-based filtering algorithms. The system aims to address challenges in career planning, such as lack of personalized guidance and information overload, by analyzing users' skills, educational background, and preferences. Utilizing machine learning techniques like Term Frequency-Inverse Document Frequency (TF-IDF) and cosine similarity, the system matches users with suitable career opportunities and provides detailed insights into job prospects, qualifications, and industry trends. The prototype, implemented in Python with a Flask-based interface, enables efficient data preprocessing, seamless user interaction, and accurate job recommendations. Performance evaluations, including 96% for precision, 100% for recall, and 98% for F1-score metrics confirm the system's effectiveness in delivering tailored career advice. Using the real-time data from the trusted source such as JobStreet is recommended to improve the system in the future. This work highlights the potential of content-based recommender systems in enhancing job matching and decision-making for students and professionals in Malaysia, with prospects for hybrid model integration and dataset expansion.

TABLE OF CONTENT

CONTENT **PAGE**

CHAPTHER THREE: METHODOLOGY

CHAPTER FOUR: RESULT AND DISSCUSION

CHAPTER FIVE: CONCLUSION