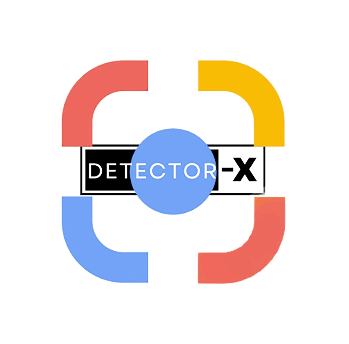


Arab Academy for Science, Technology, and Maritime Transport College of Computing and Information Technology

Smart Village

**Detector -X**

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**A System based on AI and real-time object detection and searching**

A Thesis submitted in partial fulfillment of the requirements of

Bachelor Degree in Computer Science

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**Summary**:

Our proposed model incorporates the YOLOv8 algorithm for handbag detection, renowned for its real-time and accurate performance. When a handbag is detected, it seamlessly integrates with the Google Vision API for feature extraction, enabling the extraction of essential details such as color, material, brand name, and more. These features are then utilized to construct a custom search query, which is subsequently sent to our extensive product database, the query initiates a search based on the extracted features, resulting in a list of handbags closely matching the features of the detected handbag. This comprehensive search allows users to effortlessly find similar or identical products based on a single image. Whether they are looking for a specific brand, a particular color, or a specific material, our system provides accurate and relevant results, with its advanced capabilities and integration of cutting-edge technologies, our model revolutionizes the way handbags are searched for. It saves users valuable time and effort by providing them with a tailored and personalized shopping experience. Whether they are seeking a trendy designer handbag or a budget-friendly alternative, our system ensures that users can find their perfect match with ease.

In conclusion, our proposed model, powered by YOLOv8 and the Google Vision API, offers a comprehensive and efficient solution for handbag search and discovery. It simplifies the process, enhances the user experience, and enables users to find their desired handbags effortlessly.