

## 1. Introduction

There are many times when we see outfits in either magazines, social media or someone wearing them, and we like the outfit. Therefore, we would like to buy it. Unfortunately, we do not know where to buy these outfits. Currently, many people are utilising Instagram as a platform to sell their clothes. A limitation of using Instagram is that there is no way to search and retrieve those stores that sell the outfit we want, unless we know the user ID of the store, but we still need to go through post by post. Therefore, we propose a system which can assist the store to increase their opportunity to sell their goods, and at the same time, to assist the customer to search for the outfits by simply taking a photo of the outfit. Then the system will match the sought product with the available products in the system. Our proposed web application allows a customer to simply upload a product image and will recommend stores that sell the product shown in the image or similar ones.

## 2. System Overview

Stores can add their products by giving their Instagram user ID to the system. The system will automatically crawl and store all photos from their Instagram to the database. It will automatically tag the goods in their photo too as shown in Figure 1.

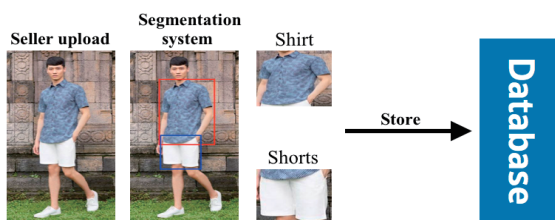


Figure 1: Seller adds products into the database

A customer can upload an image of a product. Then, the system automatically detects products available that detect

the image by using image segmentation via a Deep Learning algorithm. The user can select a product they want (e.g. shirt, skirt, etc.) as a query to search for a similar product in the database. Then, the system will retrieve all available products which match the query according to their similarity together with their availability at stores. The customer searches for a product as shown in Figure 2.



Figure 2: Customer searches for a product

## 3 Uniqueness

3.1 It is a web application that supports both PC and mobile devices.

3.2 The system can recommend stores that sell the specified product or a similar product.

3.3 The system is based on Deep Learning algorithms for both segmentation and feature extraction.

## 4 Conclusion

The system can assist customers to find online shops that sell the product that they want or a similar product and also increase the chances of the stores selling their products too.