\*\*\*\*\*\*\*\*\*\*\*\*IMAGE to be inserted\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

**FASHION APPAREL GENERATION**

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REQUIREMENTS

SYSTEM OVERVIEW

The system architecture is mainly composed of 3 components:

* GAN based apparel generation
* Stacked ensemble CNN based apparel classification
* Apparel price prediction

GAN based apparel generation is our primary module. Here we generate new clothes based on the data that we had collected during the training process from the fashion designer. These are the clothes which would have been the designer’s choice in his/her previous clothing line. We would output a set of random clothes images which would be similar to the clothes that were used for training the model.

Stacked ensemble CNN based apparel classification is a set of separate CNN models. These are a group of weak learner models that together help in improving the overall accuracy. In this component, we train the model with a set of input dress images and extract certain features of the dresses like dress length, colour, apparel sleeve length etc. We use the extracted features and feed it to the price prediction module.

Apparel price prediction, here we take the extracted features output from the stacked ensemble module and predict the price of it. This would help the fashion designer in knowing the near accurate actual price of the apparel.

RECOMMENDED BROWSERS

Adaptive Test System supports the following browsers:

* Internet Explorer 10 and above
* Firefox 52 ESR and 53 and above
* Google Chrome version 59 and above
* Safari version and above

TECHSTACK

Back-end

* Python
* Mongo DB

Front-end

* HTML
* CSS
* JAVASCRIPT

USER INTERFACE

* Our interface consists of buttons which help in ease of use for all the above-mentioned components. This UI caters to the needs of the fashion designer.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*TO BE CONTINUED\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

INSTALLATION GUIDE

Back-end

* Clone the repository https://github.com/Doraiswamy/GAN-fashion-set-generator into a separate directory.
* Choose the editor of your choice. For example, PyCharm, Spyder etc. Note that this is not a compulsory step, it is only if you want to view the code.
* Navigate to the ‘backend’ folder inside the ‘SystemCode’ folder.
* An optional step is that you can set up a virtual environment to install your dependencies inside the project folder. This helps in avoiding mixing up of different environments. Please follow the link given here: https://uoa-eresearch.github.io/eresearch-cookbook/recipe/2014/11/26/python-virtual-env/
* Install all the dependencies for the project with the help of the command ‘pip install -r requirements.txt’.
* Run the server with the help of the command ‘python manage.py runserver 0.0.0.0:8000’.
* Navigate to the browser of your choice and in the search bar paste the following URL: http://localhost:8000 to check whether the server is running or not.

\*\* Note: It is assumed that python 3.0 or above is already installed in your system. If not please install the latest python version from the link given below:

<https://www.python.org/downloads/>