

School of Computing

Year 4 Project Proposal Form

SECTION A

Project Title Similar Clothes Search

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Stream CASE4

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SECTION B

Proposal Description – using the following headings:

- General area covered by the project:
 - This project is generally a machine learning project. It will use neural networks to detect patterns, shapes and landmarks in images of clothes. It will be trained using the deep fashion dataset to recognise fine grained image similarity using a deep ranking algorithm. The similar articles of clothing will be displayed on a web app, where you can upload an image of a piece of clothing that you like and you will get back similar results. The web app will be made in flask and python.
- Outline of the proposed project
 - Background – I was looking for a similar hoodie to buy because I didn't want the exact one, by reverse image searching it on google, all I got was the same hoodie over and over again and the same places to buy it. Tried looking online to find similar images, I got recommend paid services for people to find the clothes manually.
 - Achievements – Will allow anyone to easily find a similar article of clothing by uploading a photo negating the need to pay professionals to find it find it. It will be easy to use if you have a picture of the similar article of clothes.
 - Justification - why/when/where/how it will be useful – It can be used whenever you have difficulty finding the perfect design for an article of clothing that you want. It will be used by navigating to a website and uploading a photo, and getting similar items of clothing returned and displayed.
- Programming language(s) –
 - Python
 - SQL
- Programming tools / Tech stack – e.g. compiler, database, web server, etc.
 - Machine Learning
 - Neural Networks
 - Data Mining
 - REST
 - Cloud Computing
 - Database
- Learning Challenges –
 - Image Recognition
 - Deep Learning
 - Similarity Search
 - Neural Networks
 - Flask
 - REST
- Hardware / software platform - State the hardware and software platform for development
 - Web app