



基於可組裝串聯外觀流之虛擬服裝試穿

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MIT Lab.

Multimedia
Intelligent Technical
Laboratory



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01

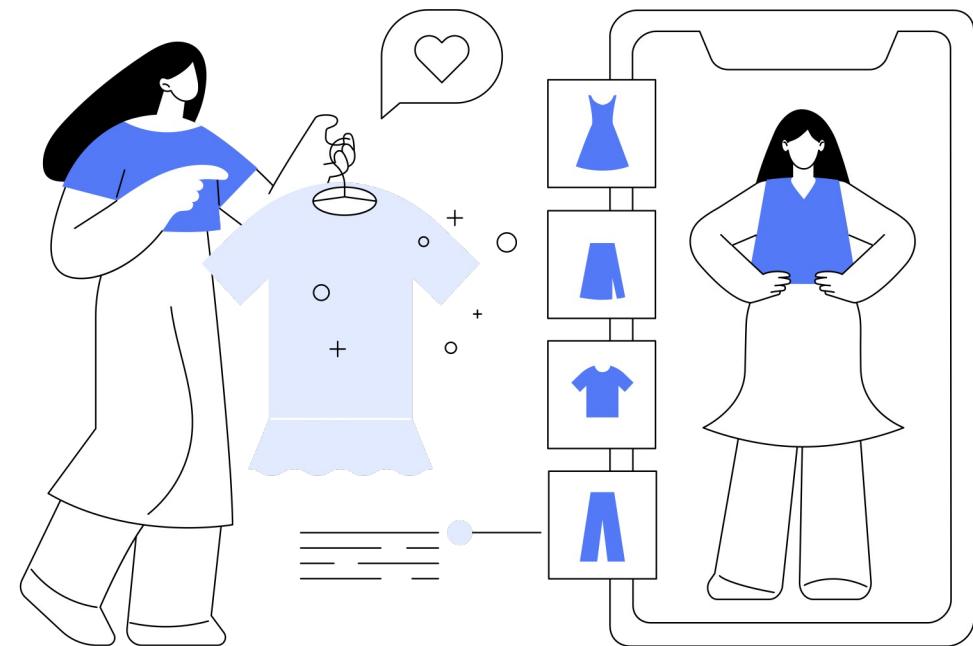
緒論



緒論 (1/4)



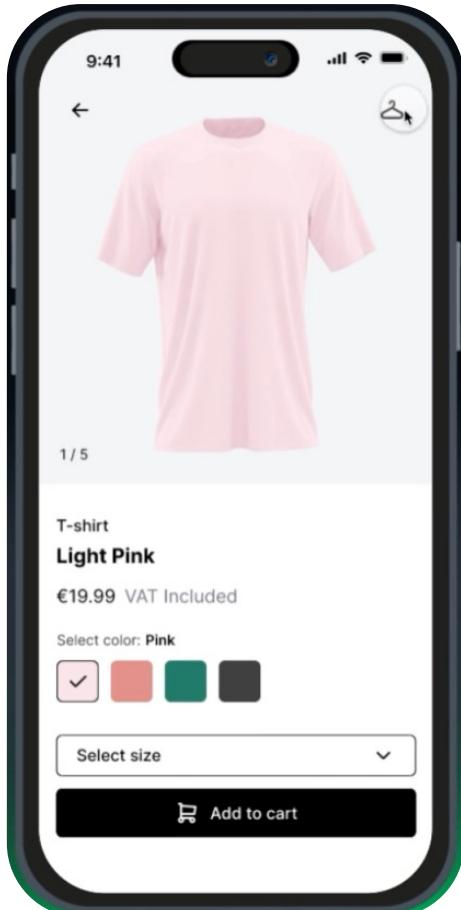
線上服飾購物的快速增長



缺乏試穿和檢查服飾狀態的便利性



緒論 (2/4)



Netguru^[1]

The screenshot shows a 3D virtual fitting room interface. A 3D male mannequin is standing in a white room with a wooden floor, wearing a white t-shirt and dark jeans. To the left of the mannequin is a vertical sidebar with three small thumbnail images showing different views of the outfit. Below the sidebar is a dropdown menu set to '31x32'. At the bottom of the screen, there is a button labeled 'Go to item'.

View look Check fit

Tommy Jeans

More items

Zalando^[2]

Pick your jeans
Check 'em out from all angles

Choose your size and create a customised avatar to see how different pairs fit. Our fit map even shows you which areas are tight or loose.

[1] Netguru : <https://www.netguru.com/blog/virtual-dressing-room-concept>

[2] Zalando : https://en.zalando.de/campaigns/denim-vfr-w/?_rfl=de



緒論 (3/4)



服裝變形^[1]



合成服裝



緒論 (4/4)



[1] X. Han, et al. "VITON: an image-based virtual try-on network," *IEEE Conference on Computer Vision and Pattern Recognition*, 2018, pp. 7543-7552.

[2] K. Sun, et al. "Appearance flow estimation for online virtual clothing warping via optimal feature linear assignment," *Image and Vision Computing*, vol. 142, pp. 104899, 2024.

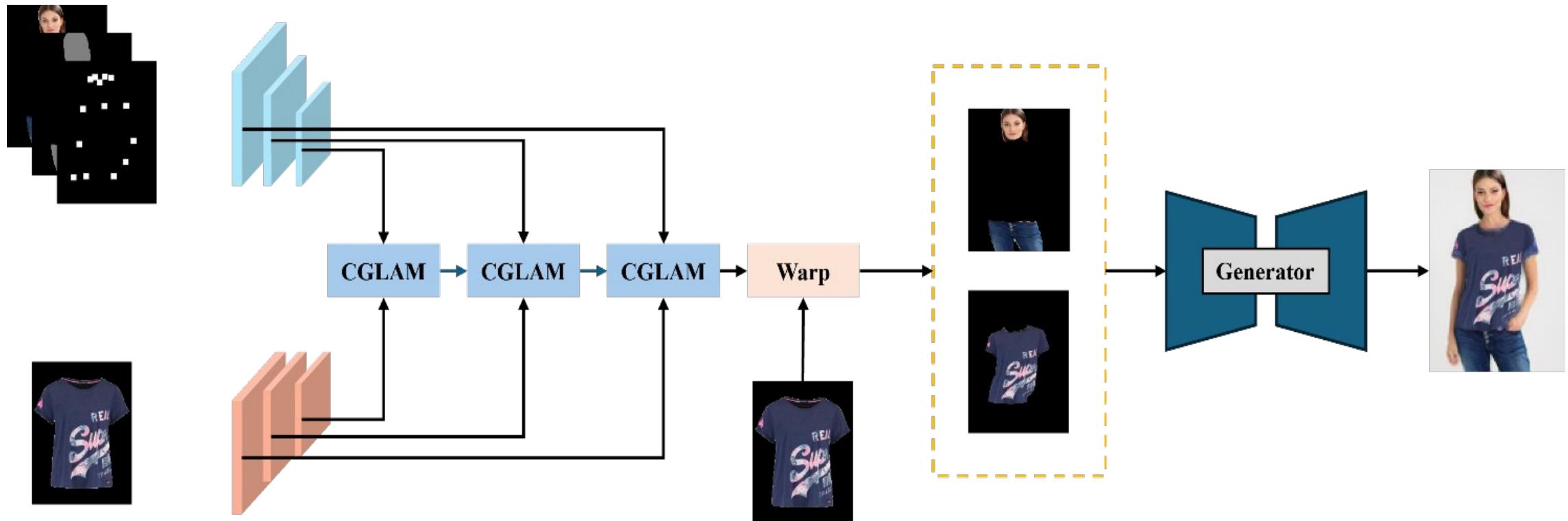


02

研究方法

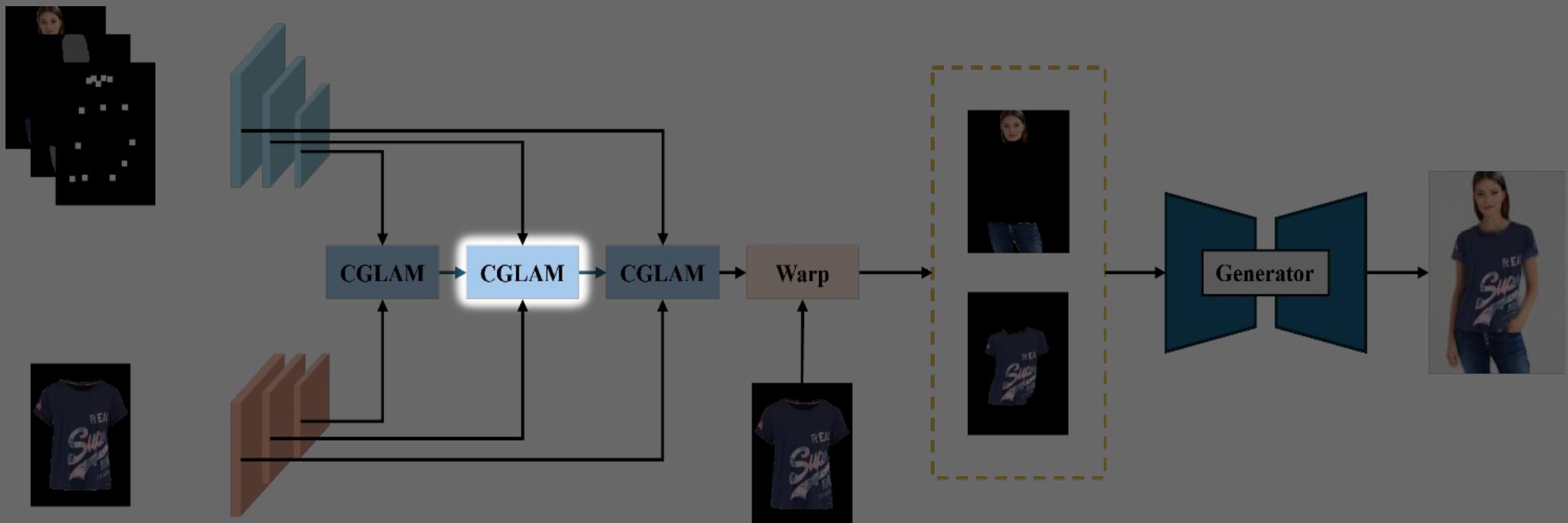


整體模型



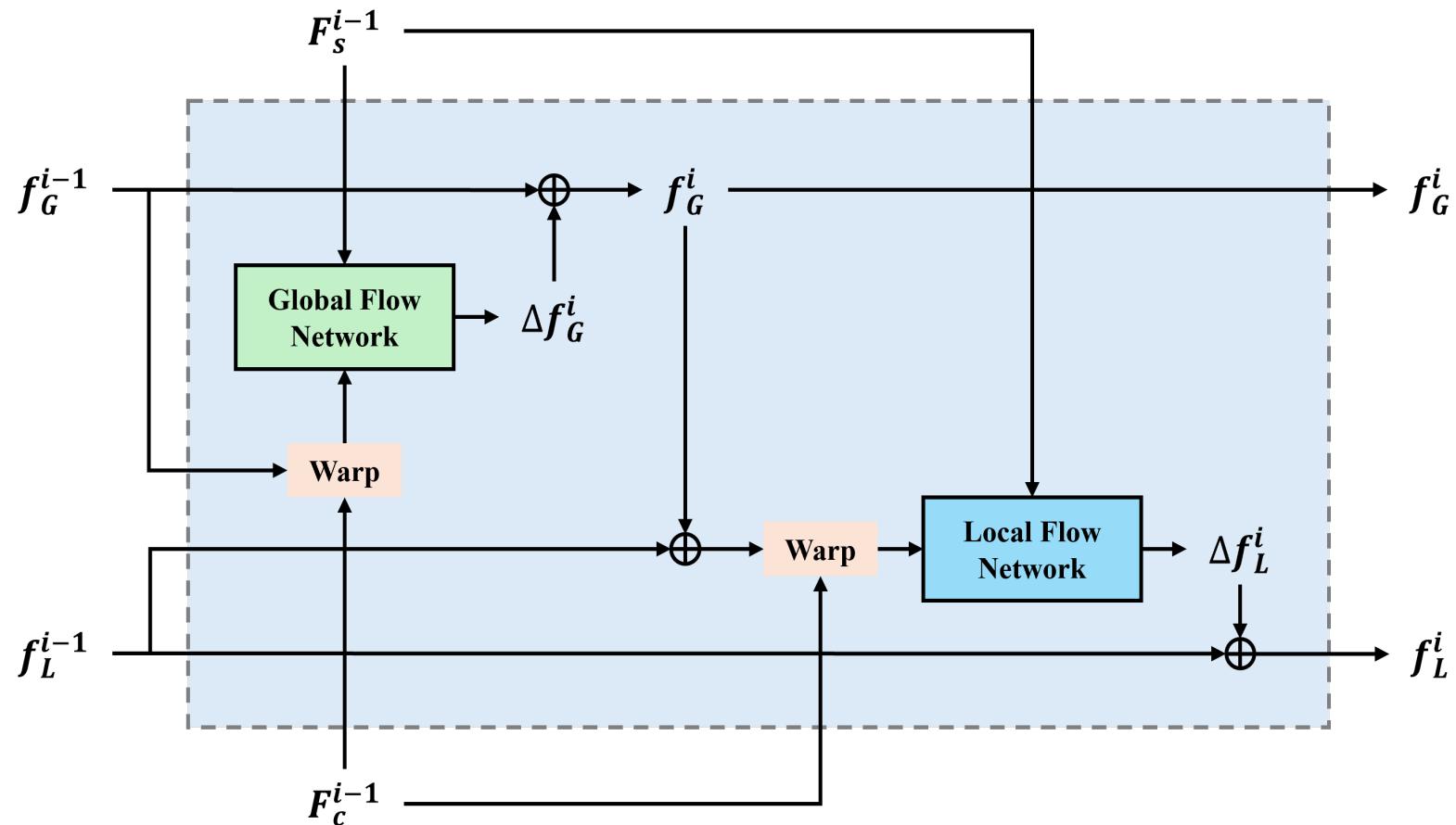


串聯全域-局部對齊模組 (CGLAM)





串聯全域-局部對齊模組 (CGLAM)





03

實驗結果分析

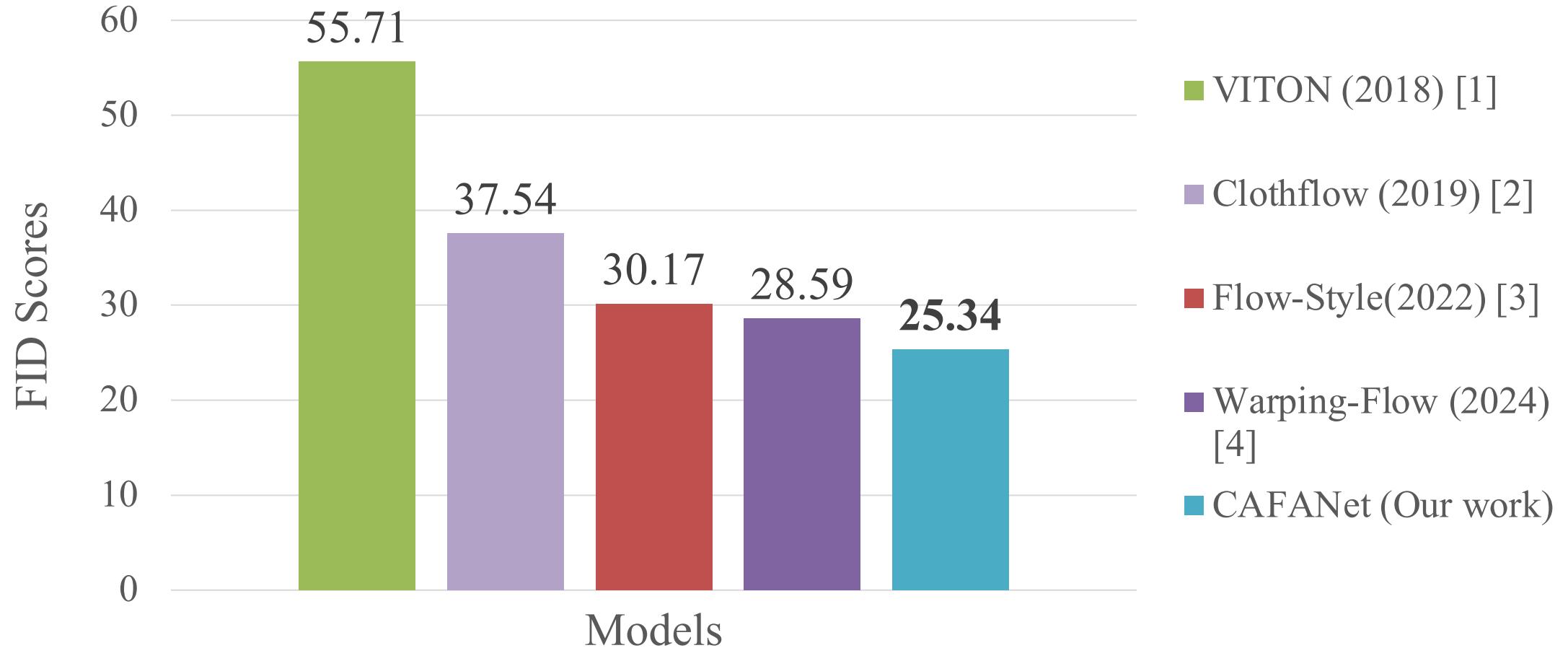


實驗數據

- 資料集 (VITON^[1])
 1. 使用VITON資料集^[1]來實現 VTON。
 2. 該資料集總共具有16,235張解析度(resolution)為256 x192的正面人物影像，以及相應的上衣服裝影像。



實驗數據



- [1] X. Han, Z. Wu, Z. Wu, R. Yu, and L.S. Davis, "VITON: an image-based virtual try-on network," *IEEE Conference on Computer Vision and Pattern Recognition*, 2018, pp. 7543-7552.
[2] X. Han, X. Hu, W. Huang, and M.R. Scott, "ClothFlow: a flow-based model for clothed person generation," *IEEE/CVF International Conference on Computer Vision*, 2019, pp. 10471-10480.
[3] S. He, Y.Z. Song, and T. Xiang, "Style-based global appearance flow for virtual try-on," *IEEE/CVF Conference on Computer Vision and Pattern Recognition*, 2022, pp. 3470-3479.
[4] K. Sun, et al. "Appearance flow estimation for online virtual clothing warping via optimal feature linear assignment," *Image and Vision Computing*, vol. 142, 2024 , pp. 104899.

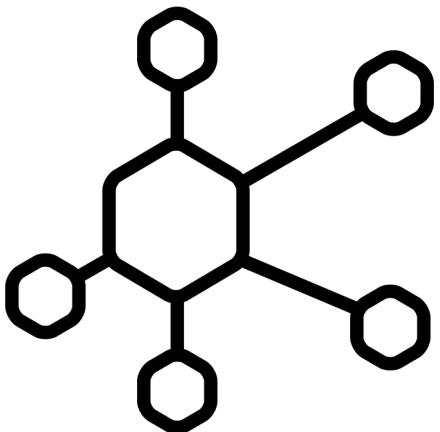


04

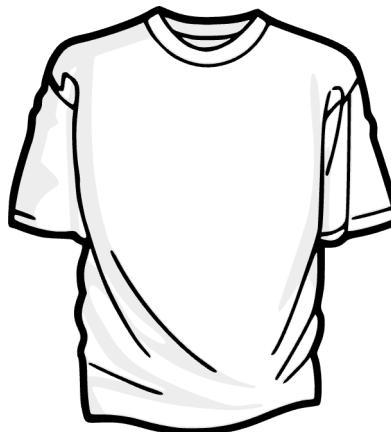
結論



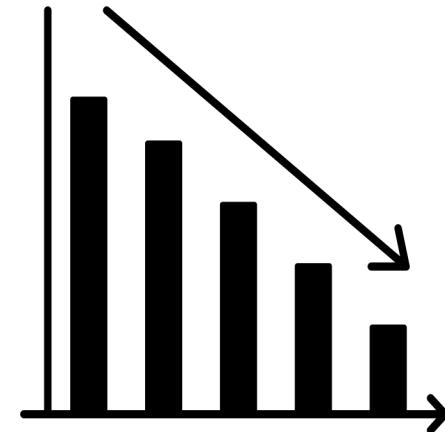
結論



提出 CGLAM 模組



增強服裝合成能力



FID數值下降



Thank
You



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