Virtual fitting solution using 3D human modelling and garments

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Customers are not able to try-on fashion garments because of the current pandemic, moreover a lot of customers are buying garments online and if there was a feature to virtually try-on garments it would ease the decision-making for customers. This project aims to design a system which will use the user's 2D image to project a 3D model of the user and fit garments on the generated 3D model by using deep learning techniques. This project presents an integrated approach for virtual try-on systems by using multiple neural networks for different tasks of pose estimation, body segmentation, garment fitting and 3D modelling of the human body. This system is compared and evaluated against the state-of-the-art implementations of virtual try-on systems by using different quantitative and qualitative metrics. This research also provides critical review for the current virtual try-on systems and the optimisations required for improving their performance and accuracy.