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Automatic Measurement of Garment Sizes Using Deep Learning

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Abstract : The online fashion industry experiences high product return rates. Many returns are because of size/fit mismatches -the size scale on labels can vary across brands, the size parameters may not capture all fit measurements, or the product may have manufacturing defects. Warehouse quality check of garment sizes can be semi-automated to improve speed and accuracy. This paper presents an approach for automatically measuring garment sizes from a single image of the garment -using Deep Learning to learn garment keypoints. The paper focuses on the waist size measurement of jeans and can be easily extended to other garment types and measurements. Experimental results show that this approach can greatly improve the speed and accuracy of today's manual measurement process.

Keywords : convolutional neural networks, deep learning, distortion, garment measurements, image warping, keypoints
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