

Graduate School of Science and Technology Master's Thesis Abstract

Laboratory name (Supervisor)	Interactive Media Design (Hirokazu Kato (Professor))		
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Thesis title	A verification network for Cloth Changing Person Re-identification using Body shape features 衣服変化に対応した人物再照合のための体型特徴を利用した検証ネットワーク		
Abstract			
Person re-identification (ReID) aims at matching anonymous data with other available information to discover the connection among these de-identified data. Existing methods for ReID tend to rely heavily on the assumption that both query and gallery images of the same person have the same clothing. Unfortunately, this assumption limits the use of ReID in daily scenes. To tackle the re-ID problem in the context of clothing changes, this paper presents a novel deep learning architecture for Cloth Changing Re-identification from a single image. The main contribution of this work is a two-step retrieving-verification framework for hard sample learning, a novel ranking method that considers both retrieving and verification results, and an image verification network specially designed for Cloth Changing Re-identification Problem. Furthermore, a comprehensive evaluation is given to verify the effectiveness of our model. We outperform state-of-the-art methods by a large margin on both synthetic and realistic datasets.			