

Fashion Compatibility with Body Shape

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I. Introduction

Finding the perfect outfit that compliments an individual's body shape can be a challenging task. We develop an AI-based workflow that would allow for outfit recommendations and compatibility scores based on body-shape. Useful for:

- Marketing applications of online and 3D shops
- Improving online purchases



II. Related Works

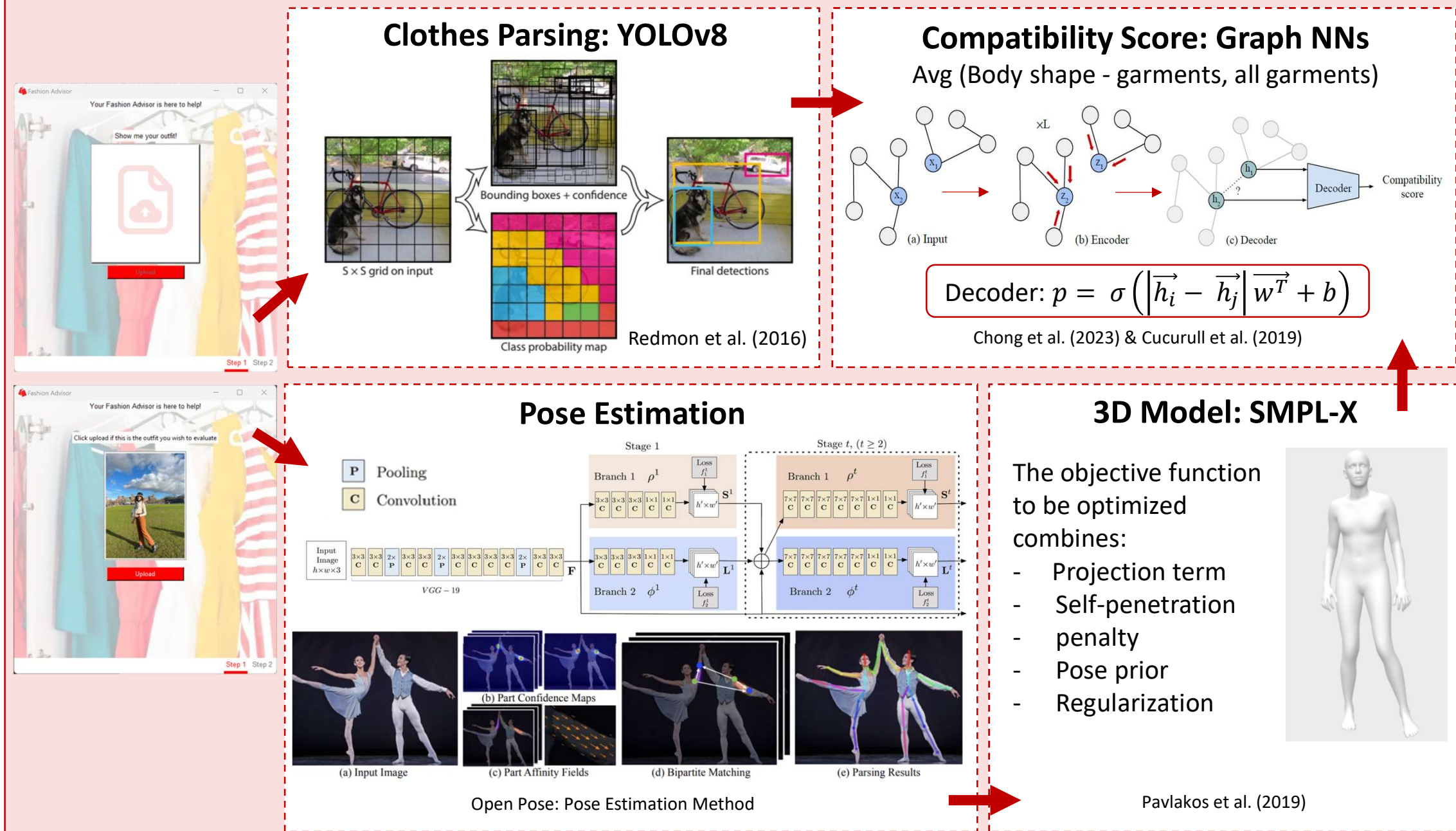
Clothes parsing: CRF for segmentation – U-nets – Graph LSTM – R-CNN etc. only limited to segmentation and less accurate

3D model: Multi – photo approach using SMPL

Garment Compatibility: Bi-Directional LSTMs – Type-Aware Embedding etc. less intuitive

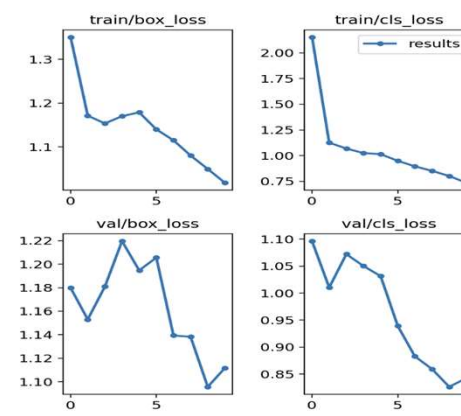
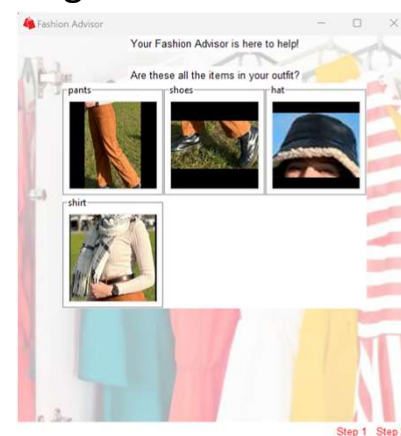
Compatibility with Body Shape:
Regression of non-visual data

III. Developed Methodology



IV. Experiments & Results

Using YOLOv8m and the “Colorful Fashion Dataset” from Kaggle



- Not very accurate positioning of joints when the pose is not frontal-facing
- Might cause issues for SMPL-X



New Perspectives:

- Personalized Compatibility
- Skin and Hair Compatibility