We wish to:

- Model and understand fashionability and its components
- Provide recommendations and advice to users

Novel dataset and Conditional Random Field model that can reason about different aspects of fashionability.

http://www.iri.upc.edu/people/esimo/research/fashionability/

**FASHION144K DATASET**

- Data from crawling the largest fashion social site: chic-topia.com
- Normalized votes used as a proxy for fashionability

**MODEL**

- Extract complementary mid-level features with a deep net
- Explicitly model different aspects of fashion using a CRF
  
(s: user, o: outfit, s: setting, f: fashionability)

**Feature** | Dim. | Description
--- | --- | ---
Fans | 1 | Number of user’s fans
ΔT | 1 | Time between post creation and download
Comments | 5 | Sentiment analysis [4] of comments
Location | 266 | Distance from location clusters [3]
Personal | 21 | Face recognition attributes
Style | 20 | Style of the photography [1]
Scene | 397 | Output of scene classifier trained on [5]
Tags | 209 | Bag-of-words with post tags
Colours | 604 | Bag-of-words with colour tags
Singles | 121 | Bag-of-words with split colour tags
Garments | 1352 | Bag-of-words with garment tags

**Deep Network for Feature Extraction**

- Train four feature extractors jointly maximizing fashionability
- Afterwards, the four networks are used independently

**RESULTS**

- Latent states manually annotated

**CRF Pairwise Terms**

- f-u Pairwise
- f-o Pairwise

**Sample Predictions**

**Outfit Recommendations**

- Estimate setting and user state and find outfit state that maximizes fashionability

**Visualizing Outfit Trends**

- Incorporate segmentation [2, 6]:

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**REFERENCES**


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Neuroaesthetics in Fashion: Modeling the Perception of Fashionability

Edgar Simo-Serra1 Sanja Fidler2 Francesc Moreno-Noguer1 Raquel Urtasun2

1Institut de Informàtica i Robòtica Industrial 2University of Toronto