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Yu-Ting (Julia) Chang

Education

University of California, Merced, CA, USA
Master of Science, Electrical Engineering and Computer Science — *2018 - present*
Vision and Learning Lab
Advisor: Ming-Hsuan Yang

National Chiao Tung University, Hsinchu, Taiwan
Bachelor of Science, Electrical and Computer Engineering — *2011 - 2015*

Research Interests

Computer Vision, Image Processing, Machine Learning
Visual Perception, Image Editing

Publications

Weakly-Supervised Semantic Segmentation via Sub-category Exploration
Yu-Ting Chang, Qiaosong Wang, Wei-Chih Hung, Robinson Piramuthu, Yi-Hsuan Tsai, Ming-Hsuan Yang
IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2020.

Image Hashing via Linear Discriminant Learning
Weixiang Hong, Yu-Ting Chang, Haifang Qin, Wei-Chih Hung, Yi-Hsuan Tsai, Ming-Hsuan Yang
IEEE Winter Conf. on Applications of Computer Vision (WACV), 2020

What Dress Fits Me Best? Fashion Recommendation on the Clothing Style for Personal Body Shape [paper]
Shintami Chusnul Hidayati, Cheng-Chun Hsu, Yu-Ting Chang, Kai-Lung Hua, Jianlong Fu, Wen-Huang Cheng
ACM International Conference on Multimedia (ACM MM), 2018

Fashion World Map: Understanding Cities Through Streetwear Fashion [paper]
Yu-Ting Chang, Wen-Huang Cheng, Kai-Lung Hua, Bo Wu
ACM International Conference on Multimedia (ACM MM), 2017

Fashion Eye: Understanding Streetwear Fashion Style
Yu-Ting Chang, Min-Jhih Huang, Jorga Hu Yu, Cheng-Chun Hsu, Wen-Huang Cheng
ACM Multimedia 2017 China Pre-conference (Invited Demonstration), 2017

Research Experience

Research Intern, eBay Inc., CA, USA
Mentor : Dr. Robinson Piramuthu and Dr. Qiaosong Wang — *Feb '19 - present*

Weakly-Supervised Semantic Segmentation — Feb '19 - Nov '19

- Improving the class activation maps (CAM) for weakly-supervised semantic segmentation
- Introducing a self-supervised task to discover sub-categories in an unsupervised manner
- Iteratively performing unsupervised clustering and pseudo training on the sub-category objective to improves the quality of initial response maps

Master Student, Vision and Learning Lab, UC Merced, CA, USA
Advisor : Prof. Ming-Hsuan Yang *Aug '18 - present*

Learning to Caricature via Disentangled Shape and Style Sep '18 - Nov '18

- Introducing an image-to-image translation framework by disentangling the shape and style transforms to achieve photo-to-caricature task
- Allowing users to select different shape and style types to generate diverse caricatures
- The two-stage framework consists of a geometric transformation network to desired shape exaggeration, and a feed-forward style transfer network for facilitating the photo-to-caricature texture translation

Video Style Transfer Aug '18 - Dec '18

- Proposing a two-stage framework for transferring the motion in a style video to a content image on semantic level
- Considering PatchMatch in a deep feature domain, providing better representations for semantic-level correspondences between style frame and content image
- The first stage focuses on discovering a correct motion style, and the second stage aims at warping the motion on the content image

Research Assistant, Multimedia Computing Lab, Academia Sinica, Taipei, Taiwan
Advisor : Dr. Wen-Huang Cheng *Apr '16 - June '18*

Fashion World Map May '16 - Dec '16

- Using street clothing style pictures to discover iconic clothing items of each global major city
- Based on convolution neural networks and PCST algorithm to depict the street fashion of a city by automatically discovering fashion items
- Providing commercial contribution including social understanding and brand intelligence
- Summarizing the work and published on 2017 ACM Multimedia Conference

What dress fits me best? Fashion Recommendation on the Clothing Style for Personal Body Shape Jun '17 - Mar '18

- Proposing a framework for learning the compatibility of clothing styles and body shapes
- Making use of celebrities style as the knowledge resource to construct a body-style map to model the correlation between clothing styles and body shapes
- Summarizing the work and published on 2018 ACM Multimedia Conference

Fashion Popularity Prediction Aug '17 - Dec '17

- Considering comprehensive fashion-related components to design a special feature for predicting the popularity of a clothing outfit photo posted on the social media website
- Applying ResNet and DenseNet to train a robust fashion popularity prediction model

Additional Skills

Languages: Mandarin Chinese (native), English (advanced), French(beginning)
Programming: Python, Bash, C/C++, JavaScript
Toolbox / Software: PyTorch, Keras, MATLAB, OpenCV, Tensorflow

References

M.S. Advisor	**Ming-Hsuan Yang**, Professor, University of California, Merced ✉ mhyang@ucmerced.edu
Research Mentor	**Robinson Piramuthu**, Research Scientist, eBay Inc. ✉ rpiramuthu@ebay.com
Research Mentor	**Qiaosong Wang**, Research Scientist, eBay Inc. ✉ qiaowang@ebay.com
Research Mentor	**Yi-Hsuan Tsai**, Research Scientist, NEC Laboratories America ✉ ytsai@nec-labs.com
Research Mentor	**Wen-Huang Cheng**, Professor, National Chiao Tung University, Taiwan ✉ whcheng@nctu.edu.tw