JINGYI XU

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RESEARCH INTERESTS

Computer Vision, Deep Learning

EDUCATION

Stony Brook University, United States *Sep 2019 - Present*
Ph.D, Computer Science GPA : 4.0/4.0

Nankai University, China *July 2015 - June 2019*
B.S., Computer Science GPA : 90.3/100

PUBLICATION

Kai Zhao, **Jingyi Xu**, Mingming Cheng. **RegularFace: Deep Face Recognition via Exclusive Regularization.** CVPR 2019.

Jingyi Xu, Mingzhen Huang, ShahRukh Athar, Dimitris Samaras. **Variational Transfer Learning for Fine-grained Few-shot Visual Recognition.** (submitted to AAAI 2021).

Jingyi Xu, Zhixin Shu, Dimitris Samaras. **Learning Clusterable Visual Features for Zero-shot Recognition.** (submitted to AAAI 2021)

EXPERIENCE

***Research Intern* at SenseTime, Beijing** Dec 2018 - July 2019
· Introduce a feature generator to generate hard features by maximizing cross-entropy loss
· The recognition model is trained to classify both the original features and the hard features correctly
· The proposed adversarial training leads to discriminative features for verification.

***Research Intern* at Panasonic R&D Center, Singapore** September 2018 - December 2018
· Aim to improve face recognition model's performance on frontal-profile face image pairs.
· Propose a module capable of modeling the transportation between frontal-profile faces in feature space.

***Research Assistant* at University of Notre Dame, USA** July 2018 - September 2018
· Construct a graphic model of R packages based on their dependency relationship.
· Evaluate the popularity of the packages according to the frequency imported by other packages.
· Build a web-app that can generate an interactive graph to illustrate the inter-connections between packages.

PROJECTS

Face recognition via exclusive regularization April 2018 - July 2018
· Propose a new regularization term to increase inter-class separability for face verification.
· The method distances identities by enlarging the cosine distance between an identity and its nearest neighbour in an embedding space.
· It is easy to implement and outperforms prior methods on several open benchmarks.

Few-shot Learning by Intra-class Variance Transfer Dec 2019 - March 2020
· Model the distribution of intra-class variance on base set by variational inference.
· Transfer the learned distribution to novel set images for feature augmentation.
· Achieve state-of-the-art performance on CUB dataset.

Zero-shot Learning with Clusterable Features   March 2020 - Present

· Project the real visual feature to a discriminative feature space supervised by classification loss and train a variational autoencoder to reconstruct them.
· Finetune the features first with Gaussian-Similarity Loss to derive a more clusterable feature space.
· Achieve state-of-the-art result on three widely used zero-shot learning datasets.

TECHNOLOGY SKILLS

Programming Languages	Python, C/C++, Java, MATLAB, LaTeX
Tools	Pytorch, Caffe

AWARDS

First Prize of Scholarship, Nankai University	2016, 2018
Second Prize of Scholarship, Nankai University	2017
First Prize, China Undergraduate Mathematical Contest in Modeling	2017
First Prize, China College Students Mathematics Competition	2016