Yifan Jiang

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Education

The University of Texas at Austin, Austin, USA 2020 – Present

Ph. D. in Electrical and Computer Engineering
Research Interests: Efficiency, Video Understanding, Neural Architecture Search, Low-level Vision

Texas A&M University, College Station, USA 2019 – 2020

Ph. D. in Computer Science (Transferred)

Huazhong University of Science and Technology, Wuhan, China 2015 – 2019

B.E. in Electronic Information Engineering, GPA: 3.59/4.0

Publication

[1] Xinyu Gong, Wuyang Chen, **Yifan Jiang**, Ye Yuan, Xianming Liu, Yuan Li, and Zhangyang Wang. "AutoPose: Bi-Level Neural Architecture Search for Pose Estimation". In: *preprint arXiv:2008.07018* (2020).

[2] Xinyu Gong, Shiyu Chang, **Yifan Jiang**, and Zhangyang Wang. "AutoGAN: Neural Architecture Search for Generative Adversarial Networks". In: *International Conference on Computer Vision (**ICCV**)* (2019).

[3] **Yifan Jiang**, Xinyu Gong, Zhangyang Wang, and Yu Cheng. "EnlightenGAN: Deep Light Enhancement without Paired Supervision". In: *Transcation on Image Processing) (under review)* (2019).

[4] Xi Ouyang*, Yu Cheng*, **Yifan Jiang**, Chun-Liang Li, and Pan Zhou. "Pedestrian-Synthesis-GAN: Generating Pedestrian Data in Real Scene and Beyond". In: *preprint arXiv:1804.02047* (2018).

Research Experience

Adobe, San Jose, USA May. 2020 – Aug. 2020

Adviser: Dr. He Zhang and Dr. Jianming Zhang.

Bytedance AI Lab, Beijing, China Jan. 2019 – Aug. 2019

Adviser: Dr. Jianchao Yang and Dr. Xiaohui Shen and Dr. Ding Liu.

- Designed a jointly image denoising and enhancement algorithm, which will appear in beauty selfie camera app FaceU

Texas A&M University (TAMU), College Station, TX July. 2018 – present

Summer Intern with Prof. Zhangyang (Atlas) Wang

Neural Architechture Search for Pose Estimation *Aug. 2019 – present*

- Designed a novel multi-branch search space and a hybrid search algorithm for pose estimation [1] with collaborators.

Neural Architechture Search for GAN *Oct. 2018 - Jan. 2019*

- Designed a Neural Architecture Search (NAS) method for Generative Adversarial Model (GAN) with 3 collaborators [2], which is the first work exploring the NAS method on generative models.

Low-light Image Enhancement *July. 2018 - Nov. 2018*

- Designed an unsupervised low light image enhancement method [3], which is the first one adopting unsupervised learning on low light image enhancement task.
- Conduct experiment on real-world images which proves that unpaired training enable us to train the model in various datasets and wrote the paper.

Huazhong University of Science and Technology, Wuhan, China May. 2017 – June. 2018

Research Assistant with Prof. Pan Zhou, Collaborated with Dr. Yu Cheng (Microsoft AI Research)

Generating Pedestrian Data in Real Scene *July. 2017 – Nov. 2017*

- Designed Pedestrian-Synthesis GAN [4] with a group member, which can generate labeled pedestrian data to support the training of pedestrian detectors such as FastRCNN, SSD, YOLO.
- Conducted experiment to study the effort of data augmentation by adding synthetic pedestrian data to real dataset and testing mAP results.
- Wrote the paper with two group members.

COMPETITION

HUST Seedcup (Machine Learning Competition) *Sep. 2017 – Oct. 2017*

- Designed a deep neural network with cross entropy loss to predict basketball game results using Tensorflow with a team member.
- Cleansed data using python and Numpy.
- Optimized basketball game prediction accuracy up to 76% and awarded **1st prize** with 10,000 CNY.

PROJECT

Recommendation System for E-shopping based on Hadoop *Dec. 2018*

- Used hadoop and HDFS to build the pipeline of the recommendation system for E-shopping with team members.
- Designed machine learning algorithm for recommendation using python with two team members.

Simulation for Hospital Admin System *Dec. 2017*

- Designed the GUI using wxPython,
- Built TCP connection between central control room and wards using ansycore and implemented synchronous non-blocking IO.

Simple Parser for C Language *Oct. 2016*

A simple parser which can analyze a short C programming code and predict the correct result/output of the code(only consider int variables)

- Built the lexical analyzer using C.
- Built the parser with two team members.

Website for Club Recruiting *Aug. 2016*

- Built a RESTful API for the recruit system by Flask.
- Used Sqlite to build the database.

SKILLS

- **Programming Languages**: Python, C/C++, Javascript, Java, LaTeX Matlab, Shell
- **Deep Learning & Computer Vision**: Pytorch, Tensorflow, openCV
- **Web Design**: HTML, CSS, Flask, Tornado ,Django
- **Operating Systems**: Linux, Windows, macOS
- **FPGA**: VerilogHDL

HONORS AND AWARDS

1st Prize with 10,000 CNY, Awarded on HUST Seedcup machine learning competition 2017 Oct. 2017
Technology Innovation Scholarship Sep. 2017