

YIFAN JIANG

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EDUCATION

Huazhong University of Science and Technology, Wuhan, China

2015 – Present

B.S. in Electronic Information Engineering

- Current GPA: 3.55/4.0
- Advisor: Prof. Pan Zhou

University of Illinois at Urbana-Champaign, Champaign, USA

July. 2017

Information Science & Engineering Summer Program 2017

RESEARCH EXPERIENCE

Facial Expression Recognition In Videos

Dec. 2017 – Mar. 2018

Advisor: Prof. Pan Zhou

Brief introduction: Recognizing an expression in videos is a challenging problem due to dynamic changes of facial action in the whole video. We propose a novel Cascaded Attention Network(CAN) based on spatio-temporal attention, tailored to the facial expression recognition in videos. The proposed model(CAN) got state-of-the-art result on three common datasets. This work is submitted to IEEE Transaction on Affective Computing (TAC).

My work:

- Studied the effect of attention on expression recognition.
- Studied the generalization of the model by doing cross-dataset test in three datasets(Oulu-CASIA, MMI, and CK+).
- Did experiments to compare different structures and models.

Generating Pedestrian Data in Real Scene

July. 2017 – Nov. 2017

Advisor: Dr. Yu Cheng from Microsoft AI Research

Brief introduction: We propose a novel framework which is built on Generative Adversarial Networks with multiple discriminators, trying to synthesize realistic pedestrian and learn the background context simultaneously, then generate labeled pedestrian data to support the training of pedestrian detectors. This work is preprint on arxiv:1804.02047

My work:

- Cleansed and preprocessed the data both in Cityscapes and Tsinghua-Daimler datasets using python and OpenCV.
- Studied the effect of pedestrian data augmentation on the training process of detector.
- Designed the code with a group member using Pytorch.
- Wrote the paper with three group members.

PUBLICATION

(* denotes equal contribution)

Yifan Jiang*, Xiaoye Qu*, Xi Ouyang, Yu Cheng, Shiping Wen, Yang Yang and Pan Zhou, "Attend to Where and When: Cascaded Attention Network for Facial Expression Recognition". IEEE Transaction on Affective Computing (TAC) 2018 (Under review)

Xi Ouyang*, Yu Cheng*, **Yifan Jiang**, Yijin Xiong, Pan Zhou, "Pedestrian-Synthesis-GAN: Generating Pedestrian Data in Real Scene and Beyond". preprint, arxiv:1804.02047

COMPETITION

Bei-Bei Seedcup (Machine Learning Competition)

Sep. 2017 – Oct. 2017

Basketball game prediction

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

PROJECT

Hospital Admin System

Dec. 2017

Simulation of hospital monitoring system. Achieved monitoring the real-time body status of patients in the ward.

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

Simple parser for C language

Oct. 2016

Building a simple parser which can analyze a short C programming code and give the correct result/output of the program(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:** Mips, VerilogHDL

HONORS AND AWARDS

1st Prize with 10,000 CNY, Awarded on Bei-Bei Seedcup 2017

Oct. 2017

Technology Innovation Scholarship

Sep. 2017