TINGLIN HUANG

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EDUCATION

Zhejiang University *Sep. 2019 - Present*
MEng in Software Engineering
Shenzhen University *Sep. 2015 - Jun. 2019*
BEng in Software Engineering with honor, GPA: 3.95/4.5 (Top 5%)

PUBLICATIONS

[1] **Huang T.**, He Y., Dai D., Wang W., Huang J.Z. (2019) Neural Network-Based Deep Encoding for Mixed-Attribute Data Classification. In: U. L., Lauw H. (eds) Trends and Applications in Knowledge Discovery and Data Mining. PAKDD 2019. **[Oral]**

[2] Zhu Y., Tong M., **Huang T.**, Wen Z., Tian Q. (2018) Learning Affective Features Based on VIP for Video Affective Content Analysis. In: Hong R., Cheng WH., Yamasaki T., Wang M., Ngo CW. (eds) Advances in Multimedia Information Processing. PCM 2018.

MANUSCRIPTS IN PREPARATION

[1] Pan J., **Huang T.**, Yang X. RIAP: A method for Effective Receptive Field Rectification.

TECHNICAL STRENGTHS

Programming Language	Python, Java, C/C++
Programming Framework	PyTorch, Keras
Github	https://github.com/huangtinglin
Technique sharing	https://www.zhihu.com/people/lin-lin-lin-zhu-75

RESEARCH INTERESTS

Machine Learning, Reinforcement Learning, Recommendation System, Social Media Analysis

WORK EXPERIENCE

DiDi Inc. *Nov. 2019 - Present*
Machine Learning Intern

· During this internship, I explored the potential of applying reinforcement learning methods to recommendation system ranking task. Specifically, the algorithm recommends the appropriate funder for each user who applies for a loan.
· I developed a model based on duelingDQN and doubleDQN, and according to the business scenarios, I modified the training process of model and completed the reward shaping.
· The model is currently launched online. In the first week, Compared with the baseline, the loan per user of the new model is greatly improved (10.15%).

National Laboratory for Big Data System Computing *May. 2017 - May. 2019*
Student Researcher Assistant

· Advised by Prof. Joshua Zhexue Huang,I mastered how to apply Machine Learning to big data analysis, and assist in some research projects.
· During this internship, I explored the data preprocessing technologies like auto-encoder for handling discrete value attributes. I proposed an auto-encoder with a new loss function which is obtained by adding the original loss function and weighted entropy.

· The experimental results prove the effectiveness of the algorithm (accuracy is improved by 2%-3%), and the paper has been included in a workshop of the conference PAKDD-2019.

RESEARCH EXPERIENCE

Research on effective receptive field *Jun. 2019 - Aug. 2019*
Main Contributor

· This research explored the phenomenon that the effective receptive field of the convolutional neural network (CNN), and attempt to solve this problem.
· As a main contributor in the research, I proposes to retransmit the marginal sparse edge information (RIAP) in an augmented path and make the effective receptive field of the normal distribution uniform.
· Firstly, we verified that the algorithm can effectively solve the problem caused by the receptive field with normal distribution. Secondly, the RIAP is applied to the classification problem, and the accuracy is effectively improved by 1%-2%. This work is expected to submit to ECCV2020.

Research on video affective computing *May. 2018 - Sep. 2018*
Main Contributor

· In this research, I tried to build a new video affective content analysis framework which can extract effective representations to analyze affection.
· Our work provide a novel solution to distinguish the important one and call it the very important person (VIP), and design a novel keyframes selection strategy to select the keyframes including the VIPs.
· This works have be accepted in PCM 2018. As a main contributor in this team, I participated in the whole process of these works, including model implementation and paper writing.

SELECTED AWARDS AND HONORS

Excellent graduates of Shenzhen University *Jun. 2019*
Chinese Undergraduate Mathematics Contest in Modeling (national second prize) *Jul. 2018*
Chinese Undergraduate Computer Design Contest (national third prize) *Sep. 2017*
Four years of Merit Scholarship *2016-2019*

TEACHING EXPERIENCE

C++ Program Design (TA) *Fall 2016*
Introduction to Computer Science (TA) *Spring 2017*