CHANGJIE LU

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Wenzhou-Kean University, DaXue Road 88, Wenzhou, Zhejiang, China, 325000

EDUCATION

Wenzhou-Kean University *August 2019 - Present*
Junior Student Overall GPA: 3.771/4.0
Department of Mathematics Science Major GPA: 3.873/4.0

SKILLS

Programming skills: Python(proficiency), JAVA, Matlab, R, Maple, Linux, Markdown, Latex
Language: Chinese, English
Framework: Pytorch, Tensorflow, Keras

RESEARCH EXPERIENCE

Real-Time Bidding Sept 2021 - Dec 2021
Functional Optimization Reinforcement Learning for Real-Time Bidding *Underreview*

· Design functional optimization agents (FOAs) using Lagrange multiplier
· Combine the deep reinforcement learning and functional optimization to learn the agent's causality.
· Demonstrate the effectiveness of the functional optimization using the multi-agent bidding scenario.
· **My responsibility**: DQN network, FOAs, paper writing

Image Deraining July 2021-Nov 2021
Segmentation-Aware Progressive Network for Perceptual Contrastive Image Deraining 2022 WACV Workshop

· Propose a semi-supervised segmentation-aware progressive network.
· Present a novel progressive dilated unit (PDU) embedded with a new channel residual attention (CRA), allowing efficient usage of multi-scale rain streak information.
· Design a new perceptual contrastive loss (PCL). By integrating perceptual and contrastive losses.
· Comprehensive experiments demonstrate that our model surpasses previous **state-of-the-arts**.
· **My responsibility**: Introducing contrastive learning, PCL, comparison with SOTA, paper writing.

Image Deblurring Dec 2020-Feb 2021
Deblur-YOLO: Fast Real-Time Object Detectionwith Blind Motion Deblurring *2021 IJCNN(Oral)*

· Presents an efficient object detection model robust to motion blur.
· Introduce Dilated Feature Pyramid Network (DFPN), which utilizes dilated convolution blocks to obtain a larger receptive field with less memory consumption.
· Design Smooth Peak Signal-to-Noise Ratio (SPSNR), which utilizes smooth l1 loss and effectively measures restored images' smoothness.
· Our model achieves competitive performance against several **state-of-the-art** image deblurring models on COCO 2014, Set5, and Set14.
· **My responsibility**: Composing, network design

WORKING EXPERIENCE

Wenzhou-Kean Univerisity AI-LAB Feb 2022 -
Computer Vision Github Website *Co-founder*

Findability Science — Sept 2021- Dec 2021

Real Time Optimal Bid Shading for First Price Auction — *Algorithm Consultant*

· Explain more than five advanced algorithm for their team.
· Propose a Deep Q Network(DQN) for first price auction.
· Use Deep learning model DeepFM for CTR prediction.

Newford Research Institute of Advanced Technology — Oct 2020 - Dec 2020

Data analysis of Zhejiang Province Industry — *Data Analyst*

· Data visualization of Industry in Zhejiang Province.
· Develop a web crawlers script for collecting the data.

AWARD

2021 3rd Price of National Mathematical Contest in Modeling
2021 Reviewer of 36th AAAI
2020-2021 Dean List Scholarship
2020-2021 Research Scholarship
2021 Invited in Fudan University, Zhuang Xiahai's medical image group

ACADEMIC INTEREST

Machine Learning, Computer Vision, Reinforcement learning