PENG ZHENG

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Education

Aalto University　　　　　　　　　　　　　　　　　　　　　　　　**2020 – present**
Master of Science in ICT Innovation　　　　　　　　　　　　　　　　　　*Espoo, Finland*

University of Trento (UNITN)　　　　　　　　　　　　　　　　　　**2019 – 2021**
Master of Science in ICT Innovation, Overall GPA score: 27/30　　　　　　　　　　*Trento, Italy*
- Recognition systems (27)
- Computer Graphics (28)
- Multimedia Data Security (27)

Hebei Normal University (HBNU)　　　　　　　　　　　　　　　　**2015 – 2019**
Bachelor of Engineer in Software Engineering, Overall GPA rank: 2/98, score: 84.5/100　　*Shijiazhuang, China*
- Advanced Mathematics (97)
- Discrete Mathematics (93)
- Python & Machine Learning (97)
- Linear Algebra (94)
- Probability & Statistics (94)
- Network Principle (96)

Research Interests
- AI4Biology
- Computer Vision
- Salient Object Detection
- Visual-Language Model

Experience

Shanghai AI Lab　　　　　　　　　　　　　　　　　　　　　　**Aug.2023 – present**
Research Intern, supervised by Dr. Peng Ye & Prof. Wanli Ouyang　　　　　　　　*Shanghai, China*
- Large Protein Model Pre-training.

Alibaba Group　　　　　　　　　　　　　　　　　　　　　　　**Feb.2023 – Aug.2023**
AIR Research Intern, supervised by Dr. Deng-Ping Fan & Dr. Dehong Gao　　　　　　*Hangzhou, China*
- Highly accurate segmentation for high-resolution image segmentation.
- Visual Adapter for SAM.

Mohamed bin Zayed University of Artificial Intelligence (MBZUAI)　　　**Jan.2022 – Sep.2022**
Research Assitant, supervised by Prof. Huan Xiong & Prof. Jie Qin & Dr. Deng-Ping Fan　　*Abu Dhabi, UAE*
- Co-Salient Object Detection with Contrastive Memory.
- Identity Aware Facial Sketch Synthesis.

Inception Institute of Artificial Intelligence (IIAI), G42　　　　　　**Mar.2021 – Jan.2022**
Research Intern, supervised by Prof. Jie Qin & Dr. Deng-Ping Fan　　　　　　　　*Abu Dhabi, UAE*
- Facial Sketch Synthesis.
- Co-Salient Object Detection with Group Collaboration.
- Person Search in An Anchor Free Style.
- Person Search with Context Information.

Computer Vision Lab, ETHZ　　　　　　　　　　　　　　　　　**May.2019 – Jan.2021**
Graduate Student, remotely supervised by Prof. Xiaogang Cheng　　　　　　　　　　*Remote*
- Anomaly Detection for Fine Instruments.
- Video Motion Magnification.

Vision Perception and Cognition Lab, HIT　　　　　　　　　　　**Nov.2018 – Jun.2019**
Undergraduate Student, supervised by Prof. Wangmeng Zuo　　　　　　　　　　　*Harbin, China*
- Crowd Counting Models with High Performance.

School of EECS, KTH　　　　　　　　　　　　　　　　　　　**Dec.2017 – April.2019**
Undergraduate Student, remotely supervised by Prof. Xiaogang Cheng　　　　　　　　*Remote*
- Contact-less Thermal Comfort Detection for HVAC System.
- Visibility Detection in Foggy Highway.
- Leaf Vein Extraction on the Swedish Rare Cypress Poplar.

Patents

Vein Extraction Algorithm for Improving Canny Operator Based on Window Dynamic Threshold
Peng Zheng, Xiaogang Cheng, Zhaohui Zhang
Publication Number CN109325498B, Application Date: 2018.07.26, Authorization Date: 2022.02.25.

Publications

GCoNet+: A Stronger Group Collaborative Co-Salient Object Detector
Peng Zheng, Huazhu Fu, Deng-Ping Fan, Qi Fan, Jie Qin, Yu-Wing Tai, Chi-Keung Tang, Luc Van Gool
*IEEE Transactions on Pattern Analysis and Machine Intelligence (**T-PAMI**) 2023*, [Code][Demo]

Efficient Person Search: An Anchor-Free Approach
Yichao Yan, Jinpeng Li, Jie Qin, **Peng Zheng**, Shengcai Liao, Xiaokang Yang
*International Journal of Computer Vision (**IJCV**) (2023): 1573-1405*, [Code]

Memory-aided Contrastive Consensus Learning for Co-Salient Object Detection
Peng Zheng, Jie Qin, Shuo Wang, Tianzhu Xiang, Huan Xiong
*AAAI Conference on Artificial Intelligence (**AAAI**), 2023*, [Code]

MovieNet-PS: A Large-Scale Person Search Dataset in the Wild
Jie Qin, **Peng Zheng**, Yichao Yan, Quan Rong, Xiaogang CHENG, Bingbing Ni
*IEEE International Conference on Acoustics, Speech and Signal Processing (**ICASSP**), 2023*, [Code][Dataset]

Facial-sketch Synthesis: A New Challenge
Deng-Ping Fan, Ziling Huang, **Peng Zheng**, Hong Liu, Xuebin Qin, Luc Van Gool
*Machine Intelligence Research (**MIR**) 19.4 (2022): 257-287*, [Code][Dataset]

Academic Services

Reviewer of Journals:
    IEEE Transactions on Pattern Analysis and Machine Intelligence (T-PAMI)
    Pattern Recognition (PR)
    Computer Vision and Image Understanding (CVIU)
    The Visual Computer (TVCJ).
    Expert System With Applications (ESWA)
    ....
Reviewer of Conferences:
    The IEEE / CVF Computer Vision and Pattern Recognition Conference (CVPR), 2023
    AAAI Conference on Artificial Intelligence (AAAI), 2023, 2024
    Chinese Conference on Pattern Recognition and Computer Vision (PRCV), 2021.
    ....

Awards

Non-EU Merit Nomination Scholarship from EIT Digital.
Outstanding undergraduate thesis.

Skills

Programming: Python, MATLAB, PyTorch, Keras, OpenCV, *etc.*
Tools: LaTeX, Inkscape, Linux, GitHub, *etc.*
Languages: Chinese (native), English (fluent, 2 years in Europe + 1 year in UAE).

About

Initialization: Luckily born in 1998.01.08, Yancheng City – a city makes your heart open.
Hobbies: Boating, Reading (Kafka, D.H. Lawrence, Camus), Go (Weiqi).
Aspiration: Scientist in Vision & AI, a Visioneer (Vision Pioneer) someday.
Traits: Tend to find novel and interesting things, both in daily life and research; love to share and help; hate falsification and mediocrity.