Yuanzheng Ci

📞 (+86) 186 4030 1480
📞 (+61) 0480 179 252
✉ mail@yuanzheng.ci
🖥 yuanzheng.ci

Education

Oct.2019 - present
Ph.D. in Engineering, *EIE, The University of Sydney*, Sydney, Australia.
- Supervisor: Prof. Wanli Ouyang and Prof. Luping Zhou

Sep.2015 - Jun.2019
B.E. in Software Engineering, *ISE, Dalian University of Technology*, Dalian, China.
- Rank: Freshmen & Sophomore: **1/96**, Junior: **1/64**, Cumulative GPA: **4.43/5**
- Dual Degree: **B.A. in Japanese**

Research Interests

Foundation Models, Self-Supervised Learning, Neural Architecture Search, Controlled Image Synthesis

Publications

Under Review
UniHCP: A Unified Model for Human-Centric Perceptions.
Yuanzheng Ci*, Yizhou Wang*, Meilin Chen, Shixiang Tang, Lei Bai, Feng Zhu, Rui Zhao, Fengwei Yu, Donglian Qi, Wanli Ouyang (* equal contribution)

Under Review
HumanBench: Towards General Human-centric Perception with Projector Assisted Pretraining.
Shixiang Tang, Cheng Chen, Meilin Chen, Qingsong Xie, Yizhou Wang, **Yuanzheng Ci**, Lei Bai, Feng Zhu, Haiyang Yang, Li Yi, Rui Zhao, Wanli Ouyang

ECCV 2022
Fast-MoCo: Boost Momentum-based Contrastive Learning with Combinatorial Patches.
Yuanzheng Ci, Chen Lin, Lei Bai, Wanli Ouyang

ICCV 2021
Evolving Search Space for Neural Architecture Search.
Yuanzheng Ci, Chen Lin, Ming Sun, Boyu Chen, Hongwen Zhang, Wanli Ouyang

ACM MM 2018
User-Guided Deep Anime Line Art Colorization with Conditional Adversarial Networks.
Yuanzheng Ci, Xinzhu Ma, Zhihui Wang, Haojie Li, Zhongxuan Luo

Research Experience

Jul.2018 - present
SenseTime Group Limited , Beijing, China.
Research Intern
- **Human-Centric Foundation Model**
  Built up codebase for large-scale multi-task pretraining with colleagues. Participated in constructing large-scale human-centric pretraining dataset. Proposed a unified model that handles a wide range of human-centric perceptions (ReID, pose estimation, human parsing, pedestrian detection, attribute prediction) in a simple feed-forward, end-to-end transformer model. The model shares 99.97% of its parameter across tasks/datasets, can handle all tasks simultaneously, and achieves new SOTAs on a wide range of benchmarks when jointly pretrained on 33 human-centric datasets and adapted to a specific downstream task. Two papers are under review.
- **Self-Supervised Learning**
  Proposed an efficient method for self-supervised learning that can achieve **74.7%** linear evaluation Top-1 accuracy on ImageNet with only 100 epochs of ImageNet pertaining, ResNet-50 backbone network, and negligible time overhead (on top of MoCo v3). Part of the proposed method is published on ECCV 2022.
- **Neural Architecture Search**
  Designed NAS codebase for FLOPs/parameter/latency constrained architecture search, also a contributor to the internal NAS toolchain and model zoo. Proposed a novel neural architecture search algorithm and search space that outperformed previous state-of-the-art methods. Produced 2 patents and published a paper on ICCV 2021.

Dec.2016 - Jun.2019
DUT Media Lab, *Dalian University of Technology*, Dalian, China.
Research Assistant
- Proposed a model and a dataset for accurate anime line art colorization. This model significantly improved the visual result over the previously proposed methods. Also had experience with deep non-uniform blind motion deblur and GAN-based single image super-resolution. One paper was accepted by ACM MM 2018.

Jul.2016
College of Information Science & Engineering, *Ritsumeikan University*, Kusatsu, Japan.
Short Term Exchange Program

Awards, Scholarships and Patents

Awards and Scholarships

Oct.2019 - Feb.2023	**Research Training Program Scholarship (International)**, *Department of Education*, Australian Government.
2021&22	**Postgraduate Research Support Scheme Scholarship**, *The University of Sydney*.
Jan.2019	**Outstanding Graduate of Liaoning Province (Top 3%)**, *The Educational Department of Liaoning Province*.
2016&17&18	**Learning Excellence Award (First Prize, Top 5%)**, *Dalian University of Technology*.
Dec.2018	**Lingshui Scholarship (Second Prize)**, *Dalian University of Technology*.
Nov.2018	**Excellence Award**, *International Entrepreneurship Contest for University Students*, Hyogo, Japan.

Patents

2020	**Evolving Search Space for Neural Architecture Search**, *Chinese Patent (Pending), ID: 202011273240.0.* **Yuanzheng Ci**, Chen Lin, Wanli Ouyang, Ming Sun,
2019	**A Multi-Branch Approach for Resource Constrained Neural Architecture Search**, *Chinese Patent, ID: 201910457280.1.* **Yuanzheng Ci**, Chen Lin, Wei Wu,
2018	**User-Guided Semantical Line Art Colorization**, *Chinese Patent, ID: 201810533325.4.* **Yuanzheng Ci**, Haojie Li, Zhihui Wang and ZhongXuan Luo,

Skills

Programming	Python(PyTorch, Numpy), LaTeX, Linux, C/C++
Languages	English IELTS: 7.0 (L:8.0, R:8.5, W:6.0, S:6.0), Japanese JLPT N1: 150 (LK:44, R:60, L:46)