JIANGUO HUANG

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EDUCATION

ShanghaiTech University *2021.9 - Current*
M.S., Computer Science and Technology Overall GPA: 3.71/4.0
Major GPA: 3.88/4.0

North China Electric Power University *2017.9 - 2021.6*
B.S., Information and Computing Science Overall GPA: 3.93/4.0

RESEARCH INTERESTS

Trustworthy AI, Computer Vision, Uncertainty Quantification (esp., Conformal Prediction), AI4Science.

EXPERIENCE

Research Intern, Southern University of Science and Technology. *2023.7 - Current*

- My research field is the conformal prediction on image classification problems.

Co-founder & Algorithm Engineer, Changsha Hongcheng Electric Technology Co., LTD. *2021.8 - Current*

- To identify the location and category of defects in the power transformers, I developed a set of algorithms based on Machine Learning and Signal Processing, whose performance is significantly superior to other products on the market.

Open Source Projects *2021.7 - Current*

- TorchCP (150+ stars): A Python toolbox for conformal prediction research on deep learning.

- Undingable-Optimization (100+ stars): A tutorial on optimization methods in deep learning.

- Magic-cv: A tutorial on Digital Image Processing along with instructional videos.

PUBLICATIONS AND PREPRINTS († equal contribution)

Conformal Prediction for Deep Classifier via Label Ranking. **Jianguo Huang†**, Huajun Xi†, Linjun Zhang, Huaxiu Yao, Yue Qiu*, Hongxin Wei*. Accepted by **ICML'2024**.

Koopman operator learning using invertible neural networks. Yuhuang Meng†, **Jianguo Huang†**, Yue Qiu*. Accepted by **Journal of Computational Physics** (JCR Q1).

Does Confidence Calibration Help Conformal Prediction? Huajun Xi†, **Jianguo Huang†**, Lei Feng, Hongxin Wei*.

Resolution invariant deep operator network for PDEs with complex geometries. **Jianguo Huang**, Yue Qiu*. Under review in Journal of Computational Physics.

AWARDS AND HONORS

40/1758 in the 3rd Alibaba Cloud Panjiu Zhiwei Algorithm Competition *2022*

Outstanding Departmental Student Awards *2019-2020,2020-2021*

1st prize in the undergraduate group of the 6th "Discovery Cup" National College Students Internet Software Design Competition *2018-2019*