Jianghai **Chen**

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"Be the change that you want to see in the world."

Education

Nankai University *Tianjin, China*
UNDERGRADUATE IN INTELLIGENT SCIENCE AND TECHNOLOGY *Sep. 2019 - Jun. 2023(expected)*
Major in Intelligent Science and Technology, double major in Finance

- Major GPA **87.31/100**
- Related Coursework: Probability Theory and Mathematical Statistics, Linear Algebra, Data Structure Basics, Machine Learning, Deep Learning, Reinforcement Learning

Experience

Prof. Jie Liu, Department of Automation and Intelligent Science, Nankai University *Tianjin*
RESEARCH INTERN *Sep. 2020 - Aug. 2021*

- Project built methods that can identify and answer questions based on existing data of power audit system and knowledge graph.
- Responsible for feature triad extraction and entity matching of input questions, conduct comparisons. Wrote the backend (Django) for project.

Prof. Boyuan Yang, Institute of Robotics and Information Automation, Nankai University *Tianjin*
RESEARCH ASSISTANT *Sep. 2021 - Now*

- Research on the data-driven methods in fault diagnosis, especially contrastive learning.
- Developed an unsupervised method for bearing fault diagnosis based on contrastive learning. One paper published on ISIE 2022

Prof. Yang You, High Performance Computing for Artificial Intelligence (HPC-AI) Lab, National University of Singapore *Online*
RESEARCH INTERN *Mar. 2022 - Now*

- Research on scaling the depth of Transformers.
- One paper about deeper Transfomer configurations submitted to NeurIPS 2022.

Prof. Xiaowei Chen, Municipal Innovation Projects of College Students, Nankai University *Tianjin*
STUDENT MEMBER *Apr. 2021 - Apr.2022*

- Research on rapid damage assessment and disaster relief application of typhoon disaster based on machine learning - Ningbo as an example.
- Built the machine learning approach for the project, screened disaster-causing indicators, and completed experimental analysis.

Activities & Awards

2021	**Honorable Mention**, Mathematical Contest In Modeling(MCM)		*U.S.A*
2021	**Finalist**, Outstanding student leader of the college		*Nankai University*
2021	**Provincial Second Prize**, Contemporary Undergraduate Mathematical Contest in Modeling(CUMCM)		*Nankai University*
2022	**Provincial Second Prize**, National College Students' innovation and entrepreneurship training program		*Tianjin, China*
2021	**One time**, National Encouragement Scholarship		*Nankai University*

Publication

Self-supervised Contrastive Learning Approach for Bearing Fault Diagnosis with Rare Labeled Data *ISIE 2022, Las Vegas, USA*
FIRST AUTHOR

- To solve the problem of massive unsupervised data in real fault diagnosis, a deep learning structure using contrastive learning method was developed.
- The method makes great use of a large amount of unlabeled data and achieved good results with rare labeled data.

Deeper vs Wider: A Revisit of Transformer Configuration *NeurIPS 2022, New Orleans, USA*
SECOND AUTHOR

- We propose an idea of using deeper and narrower transformer configurations, for masked autoencoder training.