

Zhengkao Zhou

PERSONAL INFORMATION

Address: Room 107, No.665 Jianchuan Rd. Shanghai, China, 200240
Email: zhengkao.zhou@sjtu.edu.cn
Mobile: +86 152 0089 7908

EDUCATION EXPERIENCES

M.E.E. Electrical Engineering 2024-present
Shanghai University, Shanghai, China
College of Smart Energy
GPA: 3.89/4.0
Advisor: Yiyao Li, Assistant Professor

B.E. Electrical Engineering 2020-2024
Hunan University, Changsha, China
GPA: 3.83/4.0 (Ranking: 3/289)

RESEARCH INTEREST

My research focuses on the application of **machine learning** and **big data analytics** in **power distribution systems**, including:

- **Situational awareness:** using deep-learning based methods to better understand the distribution system operation condition. For example, using infoGAN model to extract interpretable physical features and enabling controlled data generation
- **Physics-Informed Modeling:** using machine-learning based methods to model power systems with interpretability. For example, using Kolmogorov-Arnold Network to implement white-box modeling of electrical energy systems.

PUBLICATIONS

- [1] **Zhengkao Zhou**, Yiyao Li*, Runlong Liu, Zheng Yan, Mo-Yuen Chow. Unsupervised and controllable synthesizing for imbalanced energy dataset based on AC-InfoGAN[J]. Applied Energy, 2025, 393: 126107.
- [2] **Zhengkao Zhou**, Yiyao Li*, Zelin Guo, Zheng Yan, Mo-Yuen Chow. A White-Box Deep-Learning Method for Electrical Energy System Modeling Based on Kolmogorov-Arnold Network. (Available at: arXiv: <https://arxiv.org/abs/2407.13691>, Submitted to IEEE Transactions on Industrial Informatics)

GRANDS AND SELECTED AWARDS

Excellent Undergraduate Student Award 2024
Hunan Provincial Department of Education

Excellent Undergraduate Student Award 2024
Hunan University

Hugo Shong Scholarship (The highest social donation scholarship of Hunan University) 2024
Hunan University

China National Scholarship 2023
Ministry of Education of China

National Second prize of China University Intelligent Robot Creativity Competition 2023
Chinese Association for Artificial Intelligence

National First prize of China Robotics and Artificial Intelligence Competition 2023
Chinese Association for Artificial Intelligence

National First prize of China Robot Competition 2022
Chinese Association of Automation

TBEA Scholarship 2022
Hunan University

Honorable Mention of MCM 2022
Hunan University

INTERNSHIP

Shenzhen InnoX Academy 2024
Electronics and Algorithms engineer

OTHERS

Software: PyCharm; Altium Designer; SolidWorks; LaTeX; Keil and so on.