

# Wenxiao Xiong

Sun Yat-sen University  
132 Xiaoguwai Rd., Guangzhou City

jojo666.github.io  
xiongwx6@mail2.sysu.edu.cn

## Education

**Sun Yat-sen University**, BS in School of Computer Science  
Major: Information and Computing Science, GPA: 3.5/4.0

09/2021 - 07/2025 (expected)

**Courses:** Deep Learning 92, Data Structures and Algorithms Laboratory 94, Artificial Intelligence Laboratory 93

## Publications

- **AI-Driven Learning and Regeneration of Analog Circuit Designs from Academic Papers** (Revision Submitted to *International Journal of Circuit Theory and Applications*)
- **FrGNet: A Fourier-Guided Weakly-Supervised Framework for Nuclei Instance Segmentation** (Submitted to *IEEE Transactions on Medical Imaging*)
- **BOLD: A Machine Learning Based Dynamic Optimization Framework for Analog Circuit Sizing** (Revision Submitted to *IEEE Transactions on Circuits and Systems I: Regular Papers*)
- **Understanding the Formation Process of Positive Customer Engagement Behaviors: A Quantitative and Qualitative Interpretation** (Accepted by *Asia Pacific Journal of Marketing and Logistics*)

## Experiences

**Trustworthy Multi-Modal Benchmark for Medical Large Vision Language Models (Med-LVLMs), PSU**

**Supervisor: Prof. Suhang Wang**

06/2024 - Present

- Developed a benchmark for evaluating the trustworthiness of Medical Large Vision Language Models (Med-LVLMs).
- Evaluated Med-LVLMs in truthfulness, safety, adversarial robustness, fairness, and privacy leakage.
- Implemented attack/defense methods, built datasets, and designed tasks to comprehensively assess model robustness and trustworthiness.

**Large Language Models for SVG Flowchart Generation, UVa**

**Supervisor: Prof. Sheng Li**

07/2024 - Present

- Developed a framework to generate SVG flowcharts from textual descriptions using Large Language Models (LLMs).
- Fine-tuned LLMs to transform semantic descriptions into annotations and convert annotations into SVG code.
- Compiled a dataset of SVG flowcharts based on academic papers for training and evaluation.

**AI-Driven Learning and Regeneration of Analog Circuit Designs, SYSU (Preprint available)**

**Supervisor: Prof. Xiangyu Meng**

08/2023 - 08/2024

- Developed an AI-based framework for learning and regenerating analog circuits from academic literature.
- Used Faster R-CNN to detect circuit elements and connections, and applied Bayesian optimization for performance simulation.
- Achieved 97% accuracy in element detection and developed an automated pipeline for extraction and simulation.

**FrGNet: A Fourier-Guided Weakly-Supervised Framework for Nuclei Instance Segmentation, SYSU**

**With: Dr. Peng Ling**

01/2024 - 09/2024

- Proposed a weakly-supervised framework for accurate nuclei instance segmentation in histopathologic images.
- Generated guidance masks with Fourier transforms for segmentation and improved features using instance-level contrastive learning.
- Achieved high accuracy segmentation with minimal annotated data, surpassing state-of-the-art methods on public datasets.

**Automatic Labeling of Metal Blocks in GDS Layout Using Large Language Models, SYSU****Supervisor: Prof. Xiangyu Meng**

05/2024 - Present

- Used LLMs to automatically label metal blocks in GDS layouts based on position and connections.
- Collected and processed a large dataset of labeled metal blocks and fine-tuned Meta-Llama-3-8B for labeling.
- Developed a pipeline to convert GDS layouts into input sequences for accurate labeling, improving design automation.

**BOLD: Machine Learning Based Dynamic Optimization Framework for Analog Circuit Sizing, SYSU****Supervisor: Prof. Xiangyu Meng**

06/2023 - 03/2024

- Developed a machine learning framework for dynamic optimization of analog circuit sizing.
- Implemented algorithms to explore design parameters and adapt to evolving constraints.
- Improved optimization efficiency, enhancing circuit sizing and mastering model selection and tuning.

**Understanding Positive Customer Engagement: The Impact of Cognition and Emotion on Behavior****Supervisor: Dr. Luning Zang**

10/2023 - 02/2024

- Analyzed how cognitive and emotional factors influence positive customer engagement using AI and NLP techniques.
- Fine-tuned BERT for multi-label classification of customer reviews.
- Achieved 92% accuracy in classifying engagement factors.

## Skills

**Software:** PyCharm, Anaconda, VMware Workstation, Draw.io, Adobe Suite**Programming:** Python, Pytorch, JavaScript, C++, C

## Awards

- |  |            |
|--|------------|
| • Mathematical Contest In Modeling Meritorious Winner (TOP 10 % )                                | 2023       |
| • National College Student Mathematical Modeling Competition (Guangdong Province) Third Prize    | 2022       |
| • CSP-JS Non-professional Software Capability Certification Advanced Level Round 2, Second Prize | 2019, 2020 |