# Fenglin Yu

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## Introduction

I am interested in the research areas of graph neural networks and unsupervised learning. I plan to pursue a master's degree in the United States. My goal is to enhance my research and engineering skills in my field of interest, and I hope to engage with experts in related areas and receive their guidance.

## Education

**Wuhan University**, Wuhan, China Sep. 2021 – July. 2025

*B.E.* in Computer Science (CS) of **Hongyi Honor College**
GPA: 3.63/4.0 Average Score: 87
**Teaching Assistant** for the Data Structures course

## Publication

**YOLO, Faster R-CNN, and SSD for cloud detection** Sep 30, 2023

*Accepted* Lead Author

Accepted by International Conference on Machine Learning and Automation (CONF-MLA 2023). It will be published in Journal of Physics: Conference Series (Print ISSN: 1742-6588) or Applied and Computational Engineering (Print ISSN: 2755-2721), and will be submitted to EI Compendex, Conference Proceedings Citation Index (CPCI), Crossref, Portico, Inspec, Scopus, Google Scholar, and other databases for indexing.

## Experience

**Internship at Huawei Wuhan Research Institute** Wuhan, China Jan. 2024 – Now

*Graph neural networks, Artificial Intelligence* Intern

Supervisor: Senior Engineer Jinyao Xie

Brief introduction: The layout of network structure diagram has always been a problem that has not been well solved, especially for the layout problem in specific business scenarios. Since some network devices do not have labels, the key lies in correctly identifying different types of network source nodes. We introduce the graph machine learning method and consider that network structure diagram has a large number of access rings. Combined with the classical graph algorithm, different types of nodes are well identified, and then hierarchical layout is carried out according to the types of nodes. Genetic algorithm is used to reduce the cross edges between layers, which solves this problem to a large extent.

**Convolutional Neural Network algorithm and its application in Artificial Intelligence** Shanghai, China June. 2023 – July. 2023

*Computer Vision, Artificial Intelligence* Group Projects Group Leader

Supervisor: Prof. Pavlos Protopapas

Brief introduction: The research project lasted for two months, followed Prof. Pavlos Protopapas for more than one month of online learning, and finally we had two weeks in Shanghai to accept the professor's offline guidance to complete the final project.

**RISC-V five-stage pipeline CPU design** Wuhan, China May. 2023 – July. 2023

*Computer Architecture* Individual Projects

Supervisor: Prof. Zhaohui Cai

Breif introduction: Using Verilog to simulate a CPU with interactive and graphics on FPGA board.

https://github.com/MikukuOvO/PipelineCPU

- Pipeline CPU design in RISC-V framework.
- Assembly programming and debugging for testing the hazard detection and interrupts of self-designed CPU.
- Realized by Verilog language and Vivado software.

## ♡ Honors and Awards

**Silver Medal**, International Collegiate Programming Contest (ACM-ICPC) Asia Xi'an Regional Contest Nov. 2022

**Silver Medal**, International Collegiate Programming Contest (ACM-ICPC) Asia Hangzhou Regional Contest Dec. 2022

**Silver Medal**, China Collegiate Programming Contest Weihai Contest Nov. 2022

**First Prize**, The second China Computer Federation (CCF) 'Sinan Cup' Quantum Computing Programming Challenge University group May. 2023

**Gold Medal**, China Collegiate Programming Contest Hubei provincial Contest May. 2022

## Skills

- Programming Languages: C++, Python
- Platform: MacOS/Windows/Linux
- TOEFL iBT: 93

## Miscellaneous

- GitHub: https://github.com/MikukuOvO
- Being in Hongyi College, which is an honor college in Wuhan University
- Assigning problems and presiding over the closing ceremony in Hubei Collegiate Program Contest in 2023