



## Yilong Zang

Gender : Male

Nationality : China

Date of Birth : 14 October 1997

Martial Status: Unmarried

+86-13006361916

✉ zangyl@whu.edu.cn

🐙 GitHub

🏠 Homepage

🔍 Google scholar

## EDUCATION

- **Bachelor of Science in Electronic and information engineering** Sep.2015 - Jul.2019  
*School of Information Science and Engineering, Wuhan University of Science and Technology* Wuhan, China
  - Bachelor's thesis: Super-resolution Reconstruction of Images based on Convolutional Neural Networks (translated)
  - Excellent graduation thesis award
- **Master of Science in Communication and Information System** Sep.2020 - Jul.2023  
*School of Computer Science, Wuhan University* Wuhan, China
  - Rank 1st in the graduate entrance examination.
  - Researched at National Engineering Research Center For Multimedia Software.
  - Advisor: [Ruimin Hu](#), Co-advisor: [Zheng Wang](#).

## TEACHING AND MENTORSHIP

- **Undergraduate course: Advanced Language Programming** Feb.2022 - Jun.2022  
*Teaching Assistant* Wuhan, China
  - Graded undergraduate programming assignments.
  - Assisted students to team up to complete the term project (mainly C++)
- **Undergraduate thesis guidance** Dec.2021 - May.2022  
*Mentor* Wuhan, China
  - Guided 2 undergraduate students on literature research, programming, and thesis writing. The research direction is about social network
  - 1 of them got a grade of A (nearly 15%).

## PROJECTS

- **National Key R&D Program of China** Sep.2020 - Dec.2022  
*Student Participant* Wuhan, China
  - **Function Implementation:** Designed a personalized influence metric for user role information based on the Pagerank model, implemented by JAVA.
  - **Report Writing:** Worked with groups to complete report writing.
- **State Key Program of National Natural Science Foundation of China** Sep.2020 - Mar.2022  
*Student Participant* Wuhan, China
  - **Research Task:** Researched on how to find high-influential users in complex social networks.
  - **Visualization:** Independently designed the visualization system for the research task, and statistical data, implemented by Vue(Javascript) + Django(Python).
- **State Key Program of National Natural Science Foundation of China** Feb.2022 - Now  
*Student Participant* Wuhan, China
  - **Research proposal writing:** Researched literature, proposed research content, and discussed the feasibility. Finally, we successfully applied for the grant.
  - **Preliminary research:** Identified technical solutions, collected data sets, and designed pre-experiments to verify the feasibility of the ideas.

## PUBLICATIONS

- [1] **Y. Zang**, R. Hu, X. Li, Z. Wang, D. Li. User and Interaction both Matter: Social Relationship Mining via Interaction Graph Propagating. In ICC 2023-IEEE International Conference on Communications (ICC), 2023, Accepted.
- [2] J. Wu, R. Hu, D. Li, L. Ren, W. Hu, **Y. Zang**. IDGL: An Imbalanced Disassortative Graph Learning Framework for Fraud Detection. Service-Oriented Computing: 20th International Conference (ICSOC), 2022: 616-631.
- [3] J. Wu, R. Hu, D. Li, L. Ren, W. Hu, **Y. Zang**. A Bi-directional Category-Aware Multi-task Learning Framework for Missing Check-in POI Identification. Service-Oriented Computing: 20th International Conference (ICSOC), 2022: 584-599.
- [4] L. Ren, R. Hu, D. Li, J. Wu, **Y. Zang**, W. Hu. Cross-Regional Friendship Inference via Category-Aware Multi-Bipartite Graph Embedding. 2022 IEEE 47th Conference on Local Computer Networks (LCN). 2022: 73-80.

- [5] D. Li, L. Zeng, R. Hu, J. Huang, X. Liang, **Y. Zang**. Dynamic Behavior Pattern: Mining the Fraudsters in Telecom Network. 2022 IEEE 23rd Int Conf on High Performance Computing & Communications (HPCC). 2022.
- [6] D. Li, L. Zeng, R. Hu, X. Liang, **Y. Zang**. ITC: Influential-Truss Community Search. 2022 International Joint Conference on Neural Networks (IJCNN). 2022: 01-08.

**Papers under review**

- 1) **Y. Zang**, R. Hu, Z. Wang, D. Xu, J. Wu, D. Li, J. Wu, L. Ren. Don't Ignore Alienation and Marginalization: Correlating Fraud Detection. In IJCAI 2023. under 2nd round review.
- 2) **Y. Zang**, R. Hu, X. Li, Z. Wang, D. Li, J. Wu, L. Ren. PRM-GNN: A Graph Neural Network based Framework to Mine Power Relationships via User Interaction Correlation. Neural Computing and Applications (NCAA). under review.
- 3) L. Ren, R. Hu, D. Li, Y. Liu, J. Wu, **Y. Zang**, W. Hu. Dynamic Graph Neural Network-based Fraud Detectors against Collaborative Fraudsters. Knowledge-Based Systems (KBS). under review.
- 4) L. Ren, R. Hu, D. Li, J. Wu, **Y. Zang**. AceFraud: Aggregation Architecture Searcher for Fraud Detection. 2023 20th International Conference on Knowledge Representation and Reasoning (KR). under review.

**Patents**

- 1) A social relationship mining method based on interaction graph propagation (first student inventor) - China Patent - CN114741430A - 2022 Acceptance
- 2) Fraud detection method and device based on correlation fraud awareness (first student inventor) - China Patent - CN11xxxxxx - 2023 Acceptance
- 3) A method and system for location place prediction for missing POI (co-inventor) - China Patent - CN115423166A - 2022 Acceptance
- 4) Missing POI identification method (co-inventor) - China Patent - CN114911996A - 2022 Acceptance

**TECHNICAL SKILLS AND INTERESTS**

**Languages:** IELTS Overall 6.5, Writing 7, Reading 7, Listening 6, Speaking 6.  
**Programming language:** Python (master), L<sup>A</sup>T<sub>E</sub>X(master), Javascript, C++.  
**Frameworks:** Pytorch, Pytorch geometric, DGL, Networkx, Sklearn.  
**Soft kits:** Jupyter notebook, Pycharm, Overleaf, Powerpoint.  
**Cloud/Databases:** Github, OneDrive, Google Drive&Colab.  
**Amateur interest:** Swimming, Fitness, Skiing (beginner).

**POSITIONS OF RESPONSIBILITY**

- Student member.** IEEE. *Feb.2023 - Feb.2024*
- Student member.** IEEE Communications Society. *Feb.2023 - Feb.2024*

**ACHIEVEMENTS**

- Scholarship.** Wuhan University Postgraduate Academic Scholarship. *2020*
- Third prize.** China College Students "Internet+" Innovation and Entrepreneurship Competition. *2022*