

Yangfu Zhu

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Education

- ♦ **PhD candidate, Computer Science and Technology** **September 2020 – Present**
Beijing University of Posts and Telecommunications (BUPT), China.
- ♦ **MS, Computer Technology** **September 2017 – June 2020**
Chongqing University of Posts and Telecommunications (CQUPT), China.
- ♦ **BS, Communication Engineering** **September 2010 – July 2014**
Xizang Minzu University, China.

Research Interests

- ♦ Affective computing (e.g., Personality computing)
- ♦ Social network analysis (e.g., Information diffusion)
- ♦ Machine learning

Research Projects

- ♦ **Title: User Personality Detection Based on Multimodal Social Media.**
Role: Principal investigator **Advisor: Prof. Bin Wu**
Funding: Excellent Ph.D. Students Foundation (CX2022219), Beijing University of Posts and Telecommunications **2022 – Present**

This project is motivated by our previous works, which including two sub-research directions: text-based automatic personality recognition, and video-based automatic personality perception. Therefore, this project aims to achieve accurate and interpretable personality recognition methods to support various downstream application scenarios. To this end, we investigate interpretable personality recognition with domain knowledge and design a detection model with high generalization ability under low resource

I am responsible for conceptualization, methodology, software, and writing manuscripts in this project.

- ♦ **Title: Psychological Characterization of Persons Based on Network Behaviors.**
Role: Project manager **PI: Prof. Bin Wu**
Funding: National Natural Science Foundation of China (U1936200) **2020 – Present**

This project starts with the unified expression of cross-platform multidimensional network behaviors, aims at the multidimensional nature of persons' psychological performances, the uncertainty of individual behaviors and the dynamic evolution of social networks, centers on the basic elements that embody a person's psychology (individual behaviors and network relationships), then investigates the theories and methods of psychological characterization of persons from both dynamic and static (micro, meso) perspectives, and finally constructs a verification system of psychological characterization of persons based on network behaviors.

I am responsible for conceptualization, methodology, software, and writing manuscripts in this project.

- ♦ **Title: Research on Collaborative Support Technology for Cross-Regional Joint Law Enforcement of Judicial Administration.**

Role: Major researcher**PI: Prof. Bin Wu****Funding: National Key Research and Development Program of China (2018YFC0831500)****2018 – 2021**

This project aims to crack the cross-regional interdepartmental difficulties faced in the current law enforcement process from multiple perspectives of communication collaboration, information collaboration, fusion analysis and collaborative disposal. By constructing a cross-regional coordination mechanism, standards and specification system for judicial administration, the project realizes a command and decision-making and resource dispatching platform for cross-regional joint law enforcement of judicial administration; in response to the major scientific and technological needs in the fields of prison security and control of high-risk personnel, the project develops equipment for intelligent prisons, community corrections, and law enforcement security for prison police, realizing visualized remote escort, remote meeting and correctional services that can be managed and controlled throughout the process, and joint control of persons serving community sentences. We will also strengthen the supervision and protection of lawyers' practice activities by studying the technology of lawyer practice protection and practice supervision.

I am responsible for organizing members, collecting data, analyzing data, and writing related documents in this project.

Publications

- ♦ **Yangfu Zhu**, Linmei Hu, Nianwen Ning, Wei Zhang, Bin Wu. A lexical psycholinguistic knowledge-guided graph neural network for interpretable personality detection[J]. *Knowledge-Based Systems*, 2022, 249: 108952. (SCI/IF=8.139)
- ♦ **Yangfu Zhu**, Linmei Hu, Xinkai Ge, Wanrong Peng, Bin Wu. Contrastive Graph Transformer Network for Personality Detection. *IJCAI*, 2022, 4559-4565
- ♦ **Yangfu Zhu**, Zhanming Guan, Siqi Wei, and Bin Wu. PerKG: A Personality Knowledge Graph for Personality Analysis. *IEEE SMC*, 2022. (accept)
- ♦ Chengguang Song, Yiyang Teng, **Yangfu Zhu**, Siqi Wei, Bin Wu. Dynamic graph neural network for fake news detection[J]. *Neurocomputing*, 2022, 505: 362-374.
- ♦ Xuemei Mou, Wei Xu, **Yangfu Zhu**, Yunpeng Xiao. A Social Topic Diffusion Model Based on Rumor and Anti-Rumor and Motivation-Rumor[J]. *IEEE Transactions on Computational Social Systems*, 2022.
- ♦ Yunpeng Xiao, Jinghua Li, **Yangfu Zhu**, Qian Li. User behavior prediction of social hotspots based on multimessage interaction and neural network[J]. *IEEE Transactions on Computational Social Systems*, 2020, 7(2): 536-545.

Invited Talks

- ♦ The Thirty-First International Joint Conference on Artificial Intelligence (**IJCAI-22**), Vienna, Austria. (Full paper report: Contrastive Graph Transformer Network for Personality Detection)
- ♦ The 2022 IEEE International Conference on Systems, Man, and Cybernetics (**SMC 2022**) (Full paper report: PerKG: A Personality Knowledge Graph for Personality Analysis)

Invited Reviewer

- ♦ The Web Conference 2023 (**WWW2023**), Austin, Texas, USA
- ♦ IEEE Transactions on Neural Networks and Learning Systems (TNNLS)

- ♦ IEEE Transactions on Computational Social Systems (TCSS)
- ♦ Knowledge-Based Systems (KBS)

Teaching Experience at BUPT

- ♦ *Complex Network*, Postgraduate Core Course **2021 Fall**
 - Introducing the online programming system and checking students' post-class exercises.
 - Teaching students how to analyze data with Networkx and DGL.

Awards & Honor

- ♦ **National Scholarship Award of China.**
(only 7 winners in School of Computing, BUPT) **2022 Fall**
- ♦ **Academic Scholarship for Graduate Students in BUPT.** **2021 Fall**
- ♦ **Academic Scholarship for Graduate Students in CQUPT.** **2020 Summer**