Yiquan Wang
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Education

Xinjiang University *Urumqi, Xinjiang*
Bachelor of Science Degree, Mathematics and Applied Mathematics. 3.68/4 *2023–Present*
Relevant Coursework: Mathematical Analysis, Analytic Geometry, Partial Differential Equations, Functional Analysis, etc.

Joint Program: Tsinghua University, Tsien Excellence in Engineering Program - X-Institute *Shenzhen, Guangdong*
Enhanced Student Research Training, Open Research for Innovation Challenges, etc *2024–Present*

Zhounan High School *Changsha, Hunan*
Zhounan Star (the highest honor of the school), Shizhao Zhou Subject Competition Award, Peking University Summer
Camp Participant, Five Excellences Model Student, Star of Excellence, AMC 12 Second Place *2020-2023*

Research Experience

Chinese Academy of Sciences Innovation Practice Training Program *(Principal Investigator)* *2024.11-2025.9*
• Led research project on extracting and analyzing global heatwave adaptation factors using multimodal BERT models
• Integrated text, image, and structured data analysis to identify key factors affecting heatwave adaptation
• Developed theoretical and data support for global heatwave response strategies under Prof. Ge Yong's guidance

Provincial Undergraduate Innovation Training Program *(Principal Investigator)* *2024.3-2025.6*
• Conducted research on generating circularity of n-fold Cartesian product graphs of complete graphs
• Extended existing research beyond 2-3 vertex complete graphs to analyze graphs with 4+ vertices
• Collaborated with Associate Prof. Eminjan Sabir on advanced graph theory concepts

Tsinghua University Tsien Excellence in Engineering Program ESRT Project *(Principal Investigator)* *2024.8~2025.1*
• Developed innovative approach converting protein sequences into musical encodings
• Achieved 91.04% classification accuracy using ML models on 2000+ protein mappings
• Established correlation between musical harmony indices and protein functionality

Professional Experience

Institute of Software, Chinese Academy of Sciences - Huawei Mindspore *(Research Intern)* *2024.9 – 2025.3*
• Implemented VGG19-based Pollock style transfer for fractal and turbulent feature extraction
• Applied machine learning and AI techniques for artistic style analysis

Selected Publications

•Luo, Z., Wang, X., Wang, Y., Zhang, H., & Li, Z. (2024). A Personalized MOOC Learning Group and Course Recommendation Method Based on Graph Neural Network and Social Network Analysis. *Journal Of Computing In Higher Education (under review, co-first author)*
• Wang, Y., Wang, Xu., Jiazhuo, Pan. (2024). Fractal and Turbulent Feature Extraction and NFT Label Generation for Pollock Style Migration Paintings Based on VGG19. *Computer Vision and lmage Understanding (under review, first author)*
• Wang, X., Xu, L., Wang, Y., Dong, Y., Li, X., Deng, J., & He, R. (2024). Octopus Inspired Optimization Algorithm: Multi-Level Structures and Parallel Computing Strategies. *Machine Intelligence Research (under review, Corresponding author)*

Awards and Honors

• National 17th Place, Alibaba Cloud University Student Competition 2024
• National Third Prize, 14th APMCM Asia-Pacific Mathematical Modeling Competition 2024
• 7th Place, Xinjiang "Tianshan Network Cup" Cybersecurity Skills Competition 2023
• 15th Place, National Amateur Go Chess King Championship 2024

Skills & Interests

Technical Skills: Python, C/C++, MATLAB, HTML, JavaScript, CSS
Languages: Chinese (Native), English (Professional)
Research Areas: Machine Learning, Bioinformatics Analysis, Mathematical Modeling, Graph Neural Networks
Interests: Go (Weiqi), Photography, Cycling, Programming, Fishing