

JUNYAO WANG

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📈 BIOGRAPHY

Junyao Wang is a junior undergraduate in Computer School and Hongyi Honor College of Wuhan University.

He takes part in ACM-ICPC training and contests, awarding gold medal in Asia regional contest and silver medal in Asia-east continent final. And he attends the lab focusing on biomedical image analysis in Computer School directed by Prof. Feng LIU and Dr. Fei LUO. He has had a program experience since High School for Olympiad in Informatics.

He is now an intern research assistant in Hong Kong University of Science and Technology(Guangzhou).

🎓 EDUCATION

Wuhan University, Wuhan, China

2020 – 2024

B.E. in Computer Science (CS) of **Hongyi Honor College**

GPA: 3.83/4.00 with New Youth Pacemaker Award of the Honor College in 2023(Top 1% students)

Comprehensive Performance Measurements(second year): Rank 10/132 (To be updated in Sept 2023, higher or equal)

Leader of ACM-ICPC group of Hongyi Honor College in Wuhan University.

👥 EXPERIENCE

Evolutionary modeling of lung nodules based on high-resolution medical images.2020 – Present

Undergraduate Leader Supervisor: Prof. Feng LIU

Brief introduction: Research on medical image of CT or MRI images of lung and brain for segmentation and registration.

- Implement SOTA of medical image processing: U-net, ViT, TransUnet and so on.
- Experiment on segmentation and registration: VoxelMorph, ViT-V-Net, TransMorph and find the potential to improve the performance. (Improve the DSC by 0.5%, paper in draft)
- Assist in paper review from APBC2023(Asia Pacific Bioinformatics Conference).
- Combining fuzzy theory into medical image processing.

[1] **J. Wang**, F. Liu, S. Shu, G. Tao, and F. Zhou, “Unsupervised brain MRI image registration based on hybrid ViT and convolutional U-net,” *Scientific Reports*, under review.

RISC-V five-stage pipeline CPU design.

May. 2022 – July. 2022

Verilog and FPGA project Individual Projects

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

🌐 <https://github.com/wjy-yy/cpu>

- Single-cycle and Pipeline CPU design in RISC-V framework.
- Assembly programming and debugging on Venus platform for testing the hazard detection and interrupts of self-designed CPU.
- Programming simple games with assembly instructions and display via VGA on FPGA development boards.

Guangzhou Code Island Information Technology Co.

Jan. 2021 – Present

Part-time Programming Assistant

Brief introduction: Teaching Olympics in Informatics and Programming Competitions.

- Teaching basic algorithm: graph theory, data structure, math theory.
- Online judge platform management, including function adjustment and students' code analysis.
- Produce practice questions and tests for competitions, helping students get higher grades in USACO and National Olympiad in Informatics in Province etc.

♡ HONORS AND AWARDS

New Youth Pacemaker Award (Top 1%), Hongyi Honor College of Wuhan University	June, 2023
Shenzhen Stock Exchange Prize (Top 5%), Wuhan University	2021-2022
Wang-Guoqi Luo-Jinghua Prize (Top 5%~10%), Wuhan University	2020-2021
Second-class Scholarship in Wuhan University (Top 7%), Wuhan University	2021-2022
Second-class Scholarship in Wuhan University (Top 6%), Wuhan University	2020-2021
Outstanding Teaching Assistant (9 out of 76), Computer Science School of Wuhan University	July, 2023
Gold Medal, ranks 24 out of 511 teams , International Collegiate Programming Contest(ACM-ICPC) Yinchuan Regional Contest	May, 2021
Gold Medal, 10th Prize, ranks 10 out of 543 participants , China Computer Federation-Collegiate Computer Systems & Programming Contest	Dec. 2022
Silver Medal , International Collegiate Programming Contest(ACM-ICPC) Asia-East Continent Final Contest -	July, 2022
Gold Medal , China Collegiate Computing Contest-Group Programming Ladder Tournament	May, 2021
Gold Medal, Champion out of 98 teams , Hubei Province Collegiate Programming Contest	May, 2021
Bronze Medal , China Collegiate Programming Contest	Oct, 2021
Bronze Medal, top of Bronze list , National Olympiad in Informatics(NOI)	Aug, 2019
CCF Elite Collegiate Award , China Computer Federation	To be announced

⚙ SKILLS

- Programming Languages: C++ > Python > Java
- Platform: Windows/Mac OS
- China Computer Federation Certificated Software Professional(CCF-CSP) 400/500(Top 0.46%)
- CET-4: 615/710, CET-6: 580/710
- IELTS(Acdemic): 6.5(5.5)

i MISCELLANEOUS

- Blog: <https://www.wjyyy.top/>
- GitHub: <https://github.com/wjy-yy/>
- Assistant Class Teacher at Hongyi Honor College of Wuhan University
- Teaching Assistant of *Algorithm Design and Analysis* Course in Computer School, Wuhan University
- Being in Hongyi College, which is an honor college in Wuhan University
 - Awarded outstanding TA (9 out of 76 TAs)
- Assigning problems in Hubei Collegiate Program Contest and other contests
- China Computer Federation(CCF) propagandize in 🐞 website and 🐞 wechat platform(Chinese version).