

JUNYAO WANG

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📈 BIOGRAPHY

Junyao Wang is a junior undergraduate in Computer School and Hongyi Honor College of Wuhan University. Now he is an intern research administrative assistant in The Hong Kong Polytechnic University(COMP).

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 was an research assistant in Hong Kong University of Science and Technology(Guangzhou)(07/2023-10/2023).

🎓 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%), ranked 9/125.

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

Obtained CCF Elite Collegiate Award, recommended by Computer School 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 – June. 2023

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

CCF Elite Collegiate Award (Speaking representative, Top 1%), China Computer Federation	Sept, 2023
New Youth Pacemaker Award (Top 1%), Hongyi Honor College of Wuhan University	June, 2023
Lei-Jun Computer Science Prize (Top 3%~5%), Wuhan University	2022-2023
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
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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

⚙️ 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(Academic): 6.5(5.5)

📖 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).
- Speaking at CNCC as a representative of CCF Elite Collegiate Award winners.
- China Collegiate Programming Contest(Shenzhen) Chief Commentary