# Zirong Liu

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# **RESEARCH INTERESTS**

Ophthalmic Artificial Intelligence; Deep Learning; Medical Image Processing; Large Model.

# **EDUCATION**

2022 - Now | Master<sup>1,2</sup> | BME & CS (Joint student) | GPA:3.26/4.0

- 1.Wenzhou Medical University(WMU), Electronic Information (Biomedical Engineering Direction);
- 2.Southern University of Science and Technology (SUSTech), Department of Computer Science and Engineering;

2018-2022 | Bachelor | Biomedical Engineering | GPA:3.0/4.0

· Sanguan College of Xinxiang Medical University

# **PUBLICATIONS**

- Liu Z, Hu Y, Qiu Z, et al. Cross-modal attention network for retinal disease classification based on multi-modal images[J]. Biomedical Optics Express, 2024, 15(6): 3699-3714.

  Paper
- Jiang H, Gao M, Liu Z, et al. GlanceSeg: Real-time microaneurysm lesion segmentation with gaze-map-guided foundation model for early detection of diabetic retinopathy[J]. IEEE Journal of Biomedical and Health Informatics, 2024.
- Zhou D, Hu Y, Qiu, **Liu Z**, et al. Retinal layers changes in patients with age-related macular degeneration treated with intravitreal anti-VEGF agents[J]. BMC ophthalmology, 2023, 23(1): 451.

  Paper

### **PROJECTS**

- "Project Intelligent Therapeutic Massage Chair Design Based on Ultrasound Detection of Spinal Curvature supported by National Training Program of Innovation and Entrepreneurship for Undergraduates" (Project No: 202013505002) (Project Leader)
- "Project Ultrasound Imaging-Based System for Spinal Curvature Detection and Analysis supported by University-Level Undergraduate Research Initiative" (Project No: 2019008ZC)(Project Leader)
   2019

### **EXPERIENCE**

· Shanghai United Imaging Healthcare Co., Ltd. MRI Process engineer intern (2022.1-2022.5)

# **HONORS & AWARDS**

#### **National Level**

- [1] National Endeavor Scholarship, Academic Year 2020–2021
- [2] 7th National Undergraduate Basic Medical Innovation Research and Experimental Design Forum, 2021,

Silver Award

- [3] National Undergraduate Intelligent Technology Application Competition, 2021, First Prize
- [4] 7th National Undergraduate Basic Medical Innovation Research and Experimental Design Forum, Central South Region, 2021, Project 1,

• [5] Central South Region, 7th National Undergraduate Basic Medical Innovation Research and Experimental Design Forum, 2021, Project 2, • [6] National Undergraduate Intelligent Technology Application Competition, 2020, Project 1, First Prize • [7] National Undergraduate Intelligent Technology Application Competition, 2020, Project 2, Second Prize Provincial / Municipal Level • [1] Outstanding Graduate of Henan Province, 2022 · [2] Civilized Student of Henan Province, 2021 • [3] Excellent Student of Henan Province, 2021 • [4] Outstanding Student Cadre of Henan Province, 2020 2020 • [5] Outstanding University Student of Xinxiang City, • [6] Civilized Student of Xinxiang City, 2020 • [7] "Three Going to the Countryside" Summer Social Practice Campaign for College Students, Henan Province, 2020, Provincial-Level Excellent Team Leader • [8] "Challenge Cup" Henan Undergraduate Entrepreneurship Competition, 2020, Gold Award • [9] 15th "Challenge Cup" Henan Undergraduate Academic and Technological Works Competition, 2021, Third Prize • [10] 2020 Henan "Internet+" Innovation and Entrepreneurship Competition (Henan Regional Selection for the 6th China "Internet+" National Competition), Third Prize • [11] 2021 Henan "Internet+" Innovation and Entrepreneurship Competition (Henan Regional Selection for the 7th China "Internet+" National Competition), Project 1, Second Prize. • [12] 2021 Henan "Internet+" Innovation and Entrepreneurship Competition, Project 2, Third Prize • [13] 2021 Henan "Internet+" Innovation and Entrepreneurship Competition, Project 3, Third Prize • [14] Yangtze River Delta Global Creative Design Competition – Henan Regional Selection, Project 1, 2020, Second Prize • [15] Yangtze River Delta Global Creative Design Competition – Henan Regional Selection, 2020, Project 2, Third Prize • [16] 2nd Rehabilitation Industry Innovation and Entrepreneurship Competition (Prize: 20,000 RMB), 2021, Silver Award • [17] 1st Rehabilitation Industry Innovation and Entrepreneurship Competition, 2020, Best Work Nominee Award **University Level** • [1] Second-Class Postgraduate Scholarship, Wenzhou Medical University, 2022 • [2] Second-Class Postgraduate Scholarship, Wenzhou Medical University, 2023 2022 • [3] Outstanding Graduate • [4] Excellent Student 2021 · [5] Outstanding Student Cadre 2020

# **TECHNICAL SKILLS**

· Coding: Python, C/C++, Java, Shell, SQL, HTML

· [7] "Xuexi Qiangguo" Learning Star of the Year

• [6] Outstanding Youth League Cadre

· Tools: PyTorch, Tensorflow, Git, LATEX, Markdown, Vim

2021

2020