

Yunxiang Li

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EDUCATION

- **University of Texas Southwestern Medical Center** Dallas, USA
PhD of Medical Physics 2022 - present
- **Hangzhou Dianzi University** Hangzhou, China
Bachelor of Computer Science and Technology; GPA: 87/100 2018 - 2022
- **The University of Adelaide** Adelaide, Australia
Visiting Student (Summer School) 2019

RESEARCH INTERESTS

- **Medical Image Analysis:** Classification, Segmentation, Transformer in vision, Unsupervised domain adaptation

ENGLISH LEVEL

- **TOEFL iBT:** 100/120 (R 28, L 27, S 20, W 25)

SKILLS SUMMARY

- **Languages:** Python, Java, C, JavaScript, SQL
- **Frameworks:** Pytorch, Spring Boot, TensorFlow, Keras, Vue, NodeJS

EXPERIENCE

- **Microelectronics CAD Center, Hangzhou Dianzi University**
Supervisor: Dr. Yaqi Wang and Prof. Shuai Wang Aug 2019 - Sep 2021
 - **Automatic Diagnosis of Root Canal Therapy:** Cooperation with National Clinical Research Center for Oral Diseases, West China Hospital of Stomatology, Sichuan University
- **IDEA Lab, University of North Carolina at Chapel Hill**
Supervisor: Prof. Li Wang Sep 2021 - Feb 2022
 - **Infant Brain Segmentation:** Fetal/infant Brain Skull Stripping
- **Prof. Chunhua Shen's Lab, Zhejiang University**
Supervisor: Prof. Chunhua Shen Mar 2022 - June 2022
 - **Federal Learning:** Domain generalization in federated learning
- **MAIA Lab, UT Southwestern Medical Center**
Supervisor: Prof. You Zhang July 2022 - Present
 - **Diffusion Model:** Domain transfer

PUBLICATIONS

- **Conference:** Yunxiang Li, Shuai Wang, Jun Wang, Guodong Zeng, Wenjun Liu, Qianni Zhang, Qun Jin, Yaqi Wang. "GT U-Net: A U-Net Like Group Transformer Network for Tooth Root Segmentation." Published in *MICCAI 2021 MLMI*, Oral
- **Journal:** Yunxiang Li, Guodong Zeng, Yifan Zhang, Jun Wang, Qun Jin, Lingling Sun, Qianni Zhang, Qisi Lian, Guiping Qian, Neng Xia, Ruizhi Peng, Kai Tang, Shuai Wang, Yaqi Wang. "AGMB-Transformer: Anatomy-Guided Multi-Branch Transformer Network for Automated Evaluation of Root Canal Therapy." Published in *IEEE Journal of Biomedical and Health Informatics* (IF = 7.021)
- **Journal:** Dailin Lv, Yaqi Wang, Shuai Wang, Qianni Zhang, Wuteng Qi, Yunxiang Li, Lingling Sun. "A Cascade-SEME network for COVID-19 detection in chest c-ray images." Published in *Medical Physics*, 2021 (IF = 4.071)
- **Conference:** Yunxiang Li, Yaqi Wang, Shuai Wang, Ruilong Dan, Xiangde Luo, YifanCao, Chenghao Tan, Huiyu Zhou, Li Wang "Source-free Domain Adaptation for Multi-site and Lifespan Skull Stripping." Accepted by *ISBI 2022* (1-page abstract); *MICCAI 2022 MLMI* (full paper)
- **Journal:** Yunxiang Li, Jingxiong Li, Ruilong Dan, Shuai Wang, Kai Jin, Guodong Zeng, Jun Wang, Xiangji Pan, Qianni Zhang, Huiyu Zhou, Qun Jin, Li Wang, Yaqi Wang. "Dispensed Transformer for Unsupervised Domain Adaptation." In preparation
- **Journal:** Ruilong Dan*, Yunxiang Li*, Yijie Wang, Gangyong Jia, Ruiquan Ge, Juan Ye, Qun Jin, Yaqi Wang "CDNet: Contrastive Disentangled Network for Fine-Grained Image Categorization of Ocular B-Scan Ultrasound" Under review in *IEEE Journal of Biomedical and Health Informatics* (IF = 7.021)
- **Conference:** Zihan Li*, Yunxiang Li*, Qingde Li, You Zhang, Puyang Wang, Dazhou Guo, Le Lu, Dakai Jin, Qingqi Hong "LViT: Language meets Vision Transformer in Medical Image Segmentation" Under Review in *AAAI 2022*
- **Journal:** Zijiang Jiang, Jun Wang, Yibao Sun, Yunxiang Li, Dechao Chen, Yaqi Wang. "A Self-Supervised Learning based Framework for Eyelid Malignant Melanoma Diagnosis in Whole Slide Images" *IEEE-ACM Transactions on Computational Biology and Bioinformatics*

- **Journal:** An Shao, Kai Jin, **Yunxiang Li**, Lixia Lou, Wuyuan Zhou, Juan Ye. "Overview of global publications on machine learning in diabetic retinopathy from 2011 to 2021: Bibliometric analysis" Major revision for *annals of medicine* (IF = 4.709)
- **Journal:** Kai Jin, Xingru Huang, Jingxing Zhou, **Yunxiang Li**, Yan Yan, Yibao Sun, Qianni Zhang, Yaqi Wang, Juan Ye. "FIVES: A Fundus Image Vessel Segmentation Dataset." *Scientific Data* (IF = 8.0)
- **Journal:** Kai Jin, Zhiyuan Gao, Yaqi Wang, **Yunxiang Li**, Xiaoyu Ma, Juan Ye. "Globally and Locally Feature Aggregating Fundus Image Quality Assessment via Spatial Information Retained Multiscale Network." Under Review in *Computerized Medical Imaging and Graphics*
- **Journal:** Zihan Li, Wentao Chen, Yucheng Zhang, Cangbai Xu, **Yunxiang Li**, Liang Liu, Qingqi Hong, Bing Su. "CAL: Cross Auxiliary Learning for Imbalanced Semi-supervised Medical Image Semantic Segmentation." In preparation More details about my research and publications are available on my homepage "www.yunxiangli.top".

PROFESSIONAL SERVICE

- **Reviewer:** ICRA: International Conference on Robotics and Automation
- **Reviewer:** Pattern Recognition
- **Reviewer:** JBHI: IEEE Journal of Biomedical and Health Informatics
- **Reviewer:** MBEC: Medical & Biological Engineering & Computing
- **Community Member:** IEEE Student Member, MICCAI Student Member

PATENT

- **Patent:** **Yunxiang Li**, Yaqi Wang, Yifan Zhang, Ruizi Peng, Neng Xia, Kai Tang, Guiping Qian, Ruilong Dan "An interactive annotation method for tooth root X-ray images." Chinese Invention Patent; Application Number: *CN202110648218.8*
- **Patent:** **Yunxiang Li**, Yaqi Wang, Yifan Zhang, Neng Xia, Ruizi Peng, Kai Tang, Dingguo Yu, Suiyu Zhang "Neural network architecture and implementation method of multi branch deep self attention transformation network." Chinese Invention Patent; Application Number: *CN202110648214.X*
- **Patent:** **Yunxiang Li**, Yaqi Wang, Yifan Zhang, Kai Tang, Dingguo Yu, Neng Xia, Ruizi Peng, Suiyu Zhang "A method of root image segmentation by landmark detection polynomial fitting curve." Chinese Invention Patent; Application Number: *CN202110648219.2*