

# Yunxiang Li

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## EDUCATION

- **Hangzhou Dianzi University** Hangzhou, China  
*Bachelor of Computer Science and Technology; GPA: 87/100* 2018 - present
- **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* 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
- **Department of Ophthalmology, Zhejiang University**  
*Supervisor: Dr Kai Jin* Mar 2021 - Sep 2021
  - **Ophthalmic Images:** Automatic Segmentation and Diagnosis of Ophthalmic Images
- **Developing Brain Computing Lab, University of North Carolina at Chapel Hill**  
*Supervisor: Prof Li Wang* Sep 2021 - Feb 2022
  - **Infant Brain Segmentation:** Fetal/infant brain MRI processing for Segmentation, Brain Skull Stripping

## 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 = 5.772)
- **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); Under review in *MICCAI 2022* (full paper)
- **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:** 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." Under Review in *IEEE Transactions on Medical Imaging* (IF = 10.048)
- **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." Under Review in *Medical Image Analysis* (IF = 8.545)
- **Journal:** Zijing 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" Under Review in *IEEE-ACM Transactions on Computational Biology and Bioinformatics* (IF = 3.710)
- **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 *Medical Image Analysis* (IF = 8.545)
- **Conference:** 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." Submitted to *ACM-MM (CCF A)*  
More details about my research and publications are available on my homepage "[www.yunxiangli.top](http://www.yunxiangli.top)".

## PROFESSIONAL SERVICE

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- **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

## PATENT

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- **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*

## HONORS AND AWARDS

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- National Encouragement Scholarship, 2019