

Linkai Peng

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PERSONAL PROFILE

Ph.D. student at Northwestern University with a major in Electrical Engineering. Published four papers as the first author, one in MICCAI-OMIA 2021, one in ISBI 2022, one in MICCAI-MLMI 2022, and another in MICCAI-AIPAD 2024. Published one paper as the second author in MedIA. Looking to explore this field further.

Research Interests: Deep Learning, Computer Vision, Medical Image Analysis, Multi-modal Learning.

EDUCATION

- 09/2023 – Present *Northwestern Univeristy*
 Ph.D. in Electrical Engineering
- 09/2019 – 06/2023 *Southern University of Science and Technology*
 Bachelor of Engineering in Computer Science and Technology

RESEARCH EXPERIENCE

- 09/2023 – Present Work as a lab member in Machine and Hybrid Intelligence Lab at Northwestern University under the supervision of Prof. Ulas Bagci.
- 09/2020 – 06/2023 Work as a lab member in Medical Image Computing and Analysis Lab at Southern University of Science and Technology under the supervision of Prof. Xiaoying Tang.

MAJOR PUBLICATIONS

- 2024 Zhang, Z., Keles, E., Durak, G., Taktak, Y., Susladkar, O., Gorade, V., ..., **Peng, L.**, ..., & Bagci, U. (2024). Large- Scale Multi-Center CT and MRI Segmentation of Pancreas with Deep Learning. arXiv preprint arXiv:2405.12367. (under review)
- 2024 **Peng, L.**, Zhang, Z., Durak, G., Miller, F. H., Medetalibeyoglu, A., Wallace, M. B., & Bagci, U. (2024). Optimizing Synthetic Data for Enhanced Pancreatic Tumor Segmentation. arXiv preprint arXiv:2407.19284. (accepted in **MICCAI-AIPAD 2024**)
- 2023 Lin, L., **Peng, L.**, He, H., Cheng, P., Wu, J., Wong, K. K., & Tang, X. (2023). YoloCurvSeg: You only label one noisy skeleton for vessel-style curvilinear structure segmentation. Medical Image Analysis, 90, 102937. (accepted in **MedIA**)
- 2022 **Peng, L.**, Lin, L., Cheng, P., He, H., & Tang, X. (2022, September). Student becomes decathlon master in retinal vessel segmentation via dual-teacher multi-target domain adaptation. In International Workshop on Machine Learning in Medical Imaging (pp. 32-42). Cham: Springer Nature Switzerland. (accepted in **MICCAI-MLMI 2022**)

- 2022 **Peng, L.**, Lin, L., Cheng, P., Huang, Z., & Tang, X. (2022, March). Unsupervised domain adaptation for cross-modality retinal vessel segmentation via disentangling representation style transfer and collaborative consistency learning. In 2022 IEEE 19th International Symposium on Biomedical Imaging (ISBI) (pp. 1-5). IEEE. (accepted in **ISBI** 2022)
- 2021 **Peng, L.**, Lin, L., Cheng, P., Wang, Z., & Tang, X. (2021). Fargo: A joint framework for faz and rv segmentation from octa images. In Ophthalmic Medical Image Analysis: 8th International Workshop, OMIA 2021, Held in Conjunction with MICCAI 2021, Strasbourg, France, September 27, 2021, Proceedings 8 (pp. 42-51). Springer International Publishing. (accepted in **MICCAI-OMIA** 2021)

RESEARCH GRANTS

- 12/2021 - 06/2023 Project member of ‘Climbing Plan’ Fund for Science and Technology Innovation: Transfer learning based image quality evaluation on OCTA images.
- 06/2021 - 06/2023 Project leader of Student’s Platform for Innovation and Entrepreneurship Training Program: Intelligent diagnosis system for eye diseases based on OCTA images.

AWARDS & HONORS

- 11/2022 First Class of the Merit Student Scholarship in the academic year 2021 - 2022
- 11/2021 First Class of the Merit Student Scholarship in the academic year 2020 - 2021
- 11/2020 First Class of the Merit Student Scholarship in the academic year 2019 - 2020

PROGRAMMING & LANGUAGE SKILLS

Programming Skills

Python, MATLAB, Java, C++, PostgreSQL and Verilog.

SERVICES

- 09/2022 – 12/2022 Teaching Assistant for the course Object-oriented Analysis and Design
- 09/2022 – 12/2022 Teaching Assistant for the course Digital Logic
- 03/2021 – 06/2021 Teaching Assistant for the course Introduction to Computer Programming
- 09/2019 – 06/2023 Member of SUSTech Volunteer Association (SUVA)