Linkai Peng

email: linkai.peng@northwestern.edu || website: https://lkpengcs.github.io/

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*
Major: Electrical Engineering

09/2019 – 06/2023 *Southern University of Science and Technology*
Major: 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)