Qingqiao Hu

Personal Website: [Winston Hu (winstonhutiger.github.io)](winstonhutiger.github.io)

EDUCATION

Stony Brook University, Stony Brook, New York, U.S.   08/2024 - present

- Degree: Ph.D.
- Advisors: Prof. Chao Chen and Prof. Dimitris Samaras
- Major: Computer Science

UCLA, Los Angeles, California, U.S.   09/2022 - 12/2023

- Degree: Master of Science
- Major: Electrical and Computer Engineering;

Southern University of Science and Technology (SUSTech), Shenzhen, China   09/2017 - 06/2021

- Degree: Bachelor of Engineering
- Major: Computer Science;
- Honors & Awards: 2nd Place Academic Scholarship in 2018; 3rd Place Academic Scholarship in 2020

PUBLICATION

Zhang, X., **Hu, Q.**, Xiao, Z., Sun, T., Zhang, J., Zhang, J., & Li, Z. (2024). Few-Shot Adaptation to Unseen Conditions for Wireless-Based Human Activity Recognition Without Fine-Tuning. *IEEE Transactions on Mobile Computing*, 1-15.

Hu, Q., Li, H., & Zhang, J. (2022, September). Domain-adaptive 3D medical image synthesis: An efficient unsupervised approach. In *International Conference on Medical Image Computing and Computer-Assisted Intervention* (pp. 495-504). Cham: Springer Nature Switzerland.

PREPRINT

Hu, Q., Zhang, D., Luo, J., Gong, Z., Wiestler, B., Zhang, J., & Li, H. B. (2024). Learning Brain Tumor Representation in 3D High-Resolution MR Images via Interpretable State Space Models. *arXiv preprint arXiv:2409.07746*.

Hu, Q., Wang, H., Luo, J., Luo, Y., Zhangg, Z., Kirschke, J. S., ... & Li, H. B. (2023). Inter-Rater Uncertainty Quantification in Medical Image Segmentation via Rater-Specific Bayesian Neural Networks. *arXiv preprint arXiv:2306.16556*

RESEARCH EXPERIENCE

Research Assistant, **Complex Network Group, UCLA**   09/2022 - 12/2023

- Conducted research related to tooth segmentation and detection to facilitate plaque detection
- Helped collect data in Dr. Vivek Shetty's research lab in UCLA Dentistry School
- Developed and implemented tooth segmentation model to remove gums
- Developed color-based methods to detect the plaque area

Research Assistant, **CVIP Lab, SUSTech**   09/2020 - 06/2021

- Conducted research related to multi-rater uncertainty in medical image segmentation under the supervision of Prof. Jianguo Zhang
- Implemented a model of shared-encoder-multiple-decoder structure to capture the uncertainty of multiple annotations from different raters
- Utilized the data from QUBIQ challenge to demonstrate that our model performed much better than other SOTA models
- Summarized the research results and completed the bachelor thesis paper under supervision of Prof. Zhang

WORKING EXPERIENCE

Research Assistant, **Prof. Jin Zhang's Lab, SUSTech**   07/2021 - 01/2022
- Conducted research related to human activity recognition using FMCW radar
- Implemented a few-shot learning model with limited amount of radar data to classify data from unseen classes
- Used a cross-domain technique with a few collected and labeled data to adapt the model to a new environment
- Summarized the research results and submitted to IEEE Transactions on Mobile Computing (accepted).

Internship, **Sino Smart, Shenzhen**   01/2021 - 02/2021
- Worked as an intern in Sino Smart, Shenzhen
- Implemented an algorithm to detect the X-ray images of SMT materials plates based on the constraints of position information

ADDITIONAL INFORMATION
- Programming Skills: Python, Pytorch
- Research Skills: Latex