

YU ZHANG

PERSONAL INFORMATION	Ph.D. Student Department of Computer Science University of Kentucky 329 Rose Street, Lexington, KY 40506 USA	Homepage : yuzhang03.github.io Phone : +1(859)420-1076 Email : y.zhang@uky.edu
EDUCATION	University of Kentucky Ph.D. in Computer Science Advisor : Nathan Jacobs GPA : 3.89/4.00 Northeastern University (CN) <i>School of Computer Science and Engineering</i> B.E. in Communication Engineering	Aug. 2017 - Present Sept. 2013 - June 2017
SKILLS	Experience : Deep Learning, Machine Learning, Computer Vision, Unsupervised Domain Adaptation, Adversarial Attacks, Point Clouds, Astrophysics Data Analysis, Medical Image Analysis Programming : Python, PyTorch, MATLAB, C, C++, Shell, SQL	
PROFESSIONAL EXPERIENCE	Research Assistant , University of Kentucky, Lexington, KY <ul style="list-style-type: none">• Unsupervised domain adaptation for mammogram image classification and segmentation.• Data augmentation, neural network generalization, and adversarial training for medical images.• Deep learning on astrophysics data, magnetic field classification/regression on unbalanced dataset. Teaching Assistant , University of Kentucky, Lexington, KY <ul style="list-style-type: none">• CS216 : Introduction to Software Engineering Techniques• CS215 : Introduction to Program Design, Abstraction and Problem Solving• CS216 : Introduction to Software Engineering Techniques• CS371 : Introduction to Computer Networking	Summer 2019 - Present Fall 2019 Spring 2019 Fall 2018 Spring 2018
JOURNAL PUBLICATIONS	1. X. Wang, G. Liang, Yu Zhang , H. Blanton, Z. Bessinger, N. Jacobs. "Inconsistent Performance of Deep Learning Models on Mammogram Classification". In <i>Journal of the American College of Radiology</i> , 2020.	
CONFERENCE PUBLICATIONS	2. G. Liang, X. Wang, Yu Zhang , N. Jacobs. "Weakly-Supervised Self-Training for Breast Cancer Localization". In <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC)</i> , 2020. 3. Yu Zhang , G. Liang, T. Salem, N. Jacobs. "Defense-PointNet : Protecting PointNet Against Adversarial Attacks". In <i>IEEE International Conference on Big Data (BigData)</i> , 2019. 4. Yu Zhang , X. Wang, H. Blanton, G. Liang, X. Xing, N. Jacobs. "2D Convolutional Neural Networks for 3D Digital Breast Tomosynthesis Classification". In <i>IEEE International Conference of Bioinformatics and Biomedicine (BIBM)</i> , 2019. 5. G. Liang, X. Wang, Yu Zhang , X. Xing, H. Blanton, T. Salem, N. Jacobs. "Joint 2D-3D Breast Cancer Classification". In <i>IEEE International Conference of Bioinformatics and Biomedicine (BIBM)</i> , 2019.	
OTHER PUBLICATIONS	6. G. Liang, Yu Zhang , J. Liu, N. Jacobs, X. Wang. "Training Deep Learning Models as Radiologists : Breast Cancer Classification Using Combined Whole 2D Mammography and Full Volume Digital Breast Tomosynthesis". In <i>Radiological Society of North America 105th Scientific Assembly and Annual Meeting (RSNA)</i> , 2019.	

7. **Yu Zhang**, G. Liang, N. Jacobs, X. Wang. “Unsupervised Domain Adaptation for Mammogram Image Classification : A Promising Tool for Model Generalization”. In *Conference on Machine Intelligence in Medical Imaging (C-MIMI)*, 2019.

TALKS

- “Defense-PointNet : Protecting PointNet Against Adversarial Attacks”, Dec. 2019, IEEE BigData LiDAR Workshop, Los Angeles, CA
- “Unsupervised Domain Adaptation for Mammogram Image Classification : A Promising Tool for Model Generalization”, Sep. 2019, C-MIMI, Austin, TX

AWARDS

- Conference Travel Grant, University of Kentucky, 2019
- ATS Fellowship, University of Kentucky, 2017-2018

SERVICE

- Reviewing for IEEE Winter Conference on Applications of Computer Vision (WACV 2020)
- Reviewing for The British Machine Vision Conference (BMVC 2020)

MEMBERSHIPS

- Institute of Electrical and Electronics Engineers (IEEE), Student Member
- Society for Imaging Informatics in Medicine (SIIM), Student Member