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http://www.gb-liang.com
Citations: 927, h-index: 17, i10-index: 24

Highlights

- ≈$210K in external research grants secured from federal agencies and industry
- Three grant applications for domain-specific AI are in progress, requesting ≈$1.5M
- Published 10 research papers in top AI venues, received 11 awards from various organizations, and licensed one AI algorithm to industry
- Research Interests:
  - Computer Vision, LLMs, Generative AI, Machine Learning, Multimodal Integration
  - Trustworthy/Responsible Neural Networks (e.g., Robustness, Reliability, Transparency, and Fairness)
  - Domain-Specific AI (e.g., BioMedical/Healthcare, Transportation, and Astrophysics)

Education

05/2016 – 12/2020	Ph.D. in Computer Science Award: Ourstanding Ph.D. Student in Computer Science (2020)	University of Kentucky, USA
08/2013 – 05/2016	M.S. in Computer Science Award: Best Graduate Student Paper, WKU Student Research Conference (2016)	Western Kentucky University, USA
09/2004 – 07/2008	B.A. in Art Design (Video Game Design)	Northeastern University, China

Appointments and Affiliations

Assistant Professor
Grad. Student Faculty Mentor
Fall 2022–Present
Department of Computational, Engineering, and Mathematical Sciences
College of Graduate Studies
Texas A&M University San Antonio, San Antonio, TX
College Award: Outstanding Faculty Award for Research (2023)
University Award: Excellence in Scholarly Efforts (2024)

Assistant Professor
Fall 2020–Spring 2022
Department of Computer Science
Eastern Kentucky University (EKU), Richmond, KY

Graduate Assistant
Fall 2016–Spring 2020
Department of Computer Science
University of Kentucky, Lexington, KY

Graduate Teaching Assistant
Fall 2013–Spring 2016
Honors College, Western Kentucky University
Bowling Green, KY

Data Analytics Intern
Fall 2012
Houston Arts Alliance
Houston, TX

3D Game Developer
2007–2010
Shenyang Haima Technology, LLC
Shenyang, China

Grants & Supports

Activate Grants

[1] CAHSI-Google Institutional Research Program. "Mitigating Bias in Class-Imbalanced Image Synthesis Models." 09/15/2024–09/14/2025. $24,795.00 w/ additional $10000.00 Google Cloud Platform Credit. Role: PI.

[2] National Science Foundation (NSF 23-506). "AI-Ready Institution Transforming Tomorrow's Research and Education with AI for Health and Security (Jag-AI)." 01/01/2024–12/31/2025. $385,313.00. Role: Co-PI.

[3] National Aeronautics and Space Administration (NASA KY EPSCoR). "Solar Activity and Space Weather." 07/01/2022–06/30/2025. $750,000.00. Role: Co-I.

Completed Grants

[1] Texas A&M University-San Antonio College of Arts and Sciences Summer Research Grant. "Towards Safer Journeys–Multi-Modality Road Traffic Risk Estimation." 07/01/2024–08/30/2024. $4,500.00. Role: PI.

[2] University of Kentucky Center for Clinical and Translational Science. "Unsupervised Deep Learning Denoising in CT Imaging of Obese Patients." 07/01/2022–06/30/2023. $24,285.00. Role: Co-PI.

Other Research Support

[1] FASTER HPC Cluster @ Texas A&M University. "Neural Network Calibration for Multi-Modality Road Accident Risk Estimation." Role: PI. Award SU: 200,000. Duration: 12/19/2023–12/17/2025. [1]

[2] Lipscomb Computer Cluster @ The University of Kentucky. Research allocation."Solar Activity and Space Weather." Role: Co-PI. Award SU: Unlimited. Duration: 07/01/2022–Present.

Selected Publication

See full publication list at (Google Scholar ID: 9ECSYtwAAAAJ)

Journals

[1] D. Deanda, I. Alsmadi, J. Guerrero, and **Gongbo Liang**. "Defending Mutation-Based Adversarial Text Perturbation: A Black-box Approach." *Cluster Computing*, 28, (2025):196. (IF=3.6, SJR=Q1)

[2] L. Liu, J. Xie, J. Chang, Z. Liu, T. Sun, **Gongbo Liang**, and W. Gou. "H-Net: Heterogeneous neural network for multi-classification of neuropsychiatric disorders." *IEEE Journal of Biomedical and Health Informatics*, 28, no.9 (2024):5509 - 5518. (IF=7.7, SJR=Q1)

[3] **Gongbo Liang**, J. Zulu, X.Xing, and N. Jacobs. "Unveiling Roadway Hazards: Enhancing Fatal Crash Risk Estimation through MultiScale Aerial Images and Self-Supervised Learning." *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, 17 (2024):535-546. (IF=5.5, SJR=Q1)

[4] L. Liu, J. Chang, **Gongbo Liang**, and S. Xiong. "Simulated Quantum Mechanics-Based Joint Learning Network for Stroke Lesion Segmentation and TICI Grading." *IEEE Journal of Biomedical and Health Informatics*, 27, no. 7 (2023):3372 - 3383. (IF=7.7, SJR=Q1)

[5] L. Li, P. Zhang, **Gongbo Liang**, S. Xiong, J. Wang, and G. Zhang. "A Spatiotemporal Correlation Deep Learning Network for Brain Penumbra Disease." *Neurocomputing* 520, no.1 (2023):274-283. (IF=6.0, SJR=Q1)

[6] **Gongbo Liang**, C. Greenwell, Y. Zhang, X. Xing, X. Wang, R. Kavuluru, and N. Jacobs . "Contrastive Cross-Modal Pre-Training: A General Strategy for Small Sample Medical Imaging." *IEEE Journal of Biomedical and Health Informatics*, 26, no. 4 (2022):1640-1649. (IF=7.7, SJR=Q1)

[1] Abbreviation: SU – Service Unit

[7] S. Lin, Y. Su, **Gongbo Liang**, YY. Zhang, N. Jacobs, and Y. Zhang. "Estimating Cluster Masses from SDSS Multi-band Images with Transfer Learning." *Monthly Notices of the Royal Astronomical Society* 512, no. 3 (2022):3885-3894. (IF=5.4, SJR=Q1)

[8] X. Wang*, **Gongbo Liang***, Y. Zhang, H. Blanton, Z. Bessinger, and N. Jacobs. "Inconsistent Performance of Deep Learning Models on Mammogram Classification." *Journal of the American College of Radiology* 17, no. 6 (2020): 796-803. (IF=6.3, SJR=Q1, Joint First Author)

[9] R. Mihail, **Gongbo Liang**, N. Jacobs. "Automatic Hand Skeletal Shape Estimation from Radiographs." *IEEE Transactions on NanoBioscience* 18, no. 3 (2019): 296-305. (IF=3.7, SJR=Q1)

Conferences

[1] D. Deanda, Y. Masupalli, J. Yang, Y. Lee, Z. Cao and **Gongbo Liang**. "Benchmarking Robustness of Contrastive Learning Models for Medical Image-Report Retrieval." In *the Thirty-Ninth AAAI Conference on Artificial Intelligence (AAAI) Workshop*, 2025. Philadelphia, PA. USA.

[2] B. Han, Y. Masupalli, X. Xing, and **Gongbo Liang**. "Multi-Scale Probabilistic Embedding for Vision Model Calibration." In *IEEE International Conference on Big Data (BigData)*, 2024. Washington DC, USA. (CORE2023 Ranking: B, H5-index: 54)

[3] E. Xing, L. Liu, X. Xing, Y Qu, N. Jacobs, and **Gongbo Liang**. "Neural Network Decision-Making Criteria Consistency Analysis via Inputs Sensitivity." In *the* 26^{th} *International Conference on Pattern Recognition (ICPR)*. 2022. Montréal, Québec, Canada. (CORE2023 Ranking: B, H5-Index: 58)

[4] Y. Zhang, **Gongbo Liang**, and N. Jacobs. "Dynamic Feature Alignment for Semi-Supervised Domain Adaptation." In *32*nd *British Machine Vision Conference (BMVC)*, 2021. Manchester, England (Virtual). (CORE2023 Ranking: A, H5-Index: 77, Acceptance Ratio: ≈26%)

[5] **Gongbo Liang**, Y. Zhang, X. Wang, and N. Jacobs . "Improved Trainable Calibration Method for Neural Networks on Medical Imaging Classification." In *31*st *British Machine Vision Conference (BMVC)*, 2020. Manchester, England. (CORE2023 Ranking: A, H5-Index: 77, Acceptance Ratio: ≈21%)

[6] **Gongbo Liang**, S. Lin, Y. Zhang, Y. Su, and N. Jacobs . "Optical Wavelength Guided Feature Learning for Galaxy Group Richness Estimation." In *Thirty-fourth Conference on Neural Information Processing Systems (NeurIPS) Workshop*, 2020. Vancouver, Canada (virtual).

[7] X. Xing*, **Gongbo Liang***, H. Blanton, M. Rafique, C. Wang, A. Lin, and N. Jacobs. "Dynamic Image for 3D MRI Image Alzheimer's Disease Classification." In *2020 the European Conference on Computer Vision (ECCV) Workshop*, 2020. Glasgow, United Kingdom (virtual). (Joint First Author)

[8] Y. Zhang, **Gongbo Liang**, T. Salem, and N. Jacobs. "Defense-PointNet: Protecting PointNet Against Adversarial Attacks." In *2019 IEEE International Conference on Big Data (Big Data)*, 2019. Los Angeles, USA. (CORE2023 Ranking: B, H5-Index: 53, Acceptance Ratio: ≈19%)

[9] **Gongbo Liang**, X. Wang, Y. Zhang, X. Xing, H. Blanton, T. Salem, and N. Jacobs. "Joint 2D-3D Breast Cancer Classification." In *2019 IEEE International Conference on Bioinformatics and Biomedicine (BIBM)*, 2019. San Diego, USA.

[10] **Gongbo Liang**, Q. Li, and X. Kang. "Pedestrian Detection via a Leg-Driven Physiology Framework." In *IEEE International Conference on Image Processing (ICIP)*, 2016. Phoenix, USA. (CORE2023 Ranking: B, H5-Index: 61)

Refereed Abstracts

[1] G. Crumrine, Y.P. Masupalli, and **Gongbo Liang**. "Probabilistic Embedding for Medical Imaging Model Calibration via Gaussian Distribution." In *IEEE EMBS Lone Star Section Workshop on AI and Healthcare*. San Marcos, TX, December, 2024. (Awarded abstract)

[2] E. Xing and **Gongbo Liang**. "Can We Trust Neural Networks? An Analysis of Neural Network Uncertainty by the Learned Feature Space." In *ACM Mid-Southeast (ACM-MidSE) Conference*. Gatlinburg, TN, Nov 2021. Podium. (Awarded abstract)

[3] **Gongbo Liang**, N. Jacobs, and X. Wang. "Training Deep Learning Models as Radiologists: Breast Cancer Classification Using Combined Whole 2D Mammography and Full Volume Digital Breast Tomosynthesis." In *the* 105^{th} *Scientific Assembly and Annual Meeting of the Radiological Society of North America (RSNA)*. Chicago, IL, Dec 2019. Podium. (A^* Radiology Conference, Acceptance Ratio: $\approx$12%)

[4] **Gongbo Liang**, J. Zhang, M. Brooks, J. Howard, and J. Chen. "Enhancing Radiomic Features of CT Images using Generative Adversarial Network with Alternative Improvement." In *AMIA 2018 Annual Symposium*. San Francisco, CA, Nov 2018. (A^* Medical Informatics Conference)

Under-Review

[1] B. Han, G. Crumrine, M. Sorola, X. Xing, and **Gongbo Liang**. "Trustworthy Imaging Classification with Probabilistic Embedding through Gaussian Distribution Modeling." Submitted to *the IEEE International Conference on Image Processing (ICIP)*. (CORE2023 Ranking: B, H5-Index: 66)

Awards & Honors

[1] Best Poster Award, *IEEE EMBS Long Star Section Workshop on AI and Healthcare* [2024]
- Topic: Probabilistic Embedding for Medical Imaging Model Calibration via Gaussian Distribution

[2] Research achievement is continuously recognized in different issues of *¡Adelante!* , the University Magazine of Texas A&M University-San Antonio [2024, 2023]

[3] Excellence in Scholarly Efforts, Office of the Provost, Texas A&M University-San Antonio [2024]

[4] Keynote Speaker at Global Summit on Artificial Intelligence by HSPI [2024]
- Topic: Rethinking the Excited Performance of Modern Neural Networks

[5] First Place Best Poster Award, Student's Work, *The 10th TAMUSA Student Research Symposium* [2024]
- Title: Spatial-Temporal Roadway Accident Visualization and Analysis in San Antonio

[6] Outstanding Faculty for Research, College of Arts and Sciences, Texas A&M University-San Antonio [2023]

[7] First Place Best Poster Award, Student's Work, *The* 9^{th} *TAMUSA Student Research Symposium* [2023]
- Title: A Mutation-based Text Generation for Adversarial Machine Learning Applications

[8] Third Place Best Abstract Award, Student's Work, *ACM Mid-Southeast Conference* [2021]
- Title: Can We Trust Neural Networks? Neural Network Uncertainty Analysis via the Feature Space

[9] Outstanding Ph.D. Student, Department of Computer Science, University of Kentucky [2020]

[10] Journal article about deep learning inconsistent performance was featured by *AI in Healthcare* [2020]

[11] Conference presentation about deep learning for radiology was mentioned by *AuntMinnie.com* [2019]

[12] Mentored REU student received Best REU Research Project Award, University of Kentucky [2019]

[13] Second Place Best Poster Award, Markey Cancer Center Research Day [2019]
- Title: Breast Cancer Classification Using Combined Whole Mammography and DBT

[14] Best Graduate Student Paper Award, WKU Student Research Conference [2016]
- Title: Pedestrian Detection Using Line Segments

Teaching

[1] **Programming Fundamentals I** (Java, Python, Undergraduate Level) [repeat 5 times]

[2] **Programming Fundamentals II** (Java, Python, Undergraduate Level) [repeat 5 times]

[3] **Introduction to Game Programming** (C#, Undergraduate Level) [repeat 2 times]

[4] **3D Game Engine Programming** (C#, Undergraduate Level) [repeat 3 times]

[5] **3D Animation** (Undergraduate Level) [repeat 3 times]

[6] **Discrete Mathematics** (Undergraduate Level) [repeat 2 times]

[7] **Database Systems** (Undergraduate Level) [repeat 3 times]

[8] **Operating System** (Undergraduate Level) [repeat 3 times]

[9] **Machine Learning** (Undergraduate Level) [repeat 2 times]

[10] **Deep Learning** (Graduate Level) [repeat 4 times]

[11] **Artificial Intelligence** (Graduate/Undergraduate Level) [repeat 2 times]

[12] **Computer Graphics** (Graduate/Undergraduate Level) [repeat 2 times]

[13] **Application Programming** (Graduate Level) [repeat 2 time]

[14] **Independent Studies** (Graduate/Undergraduate Level) [repeat 8 times]

[15] **Honors Seminar** (Undergraduate Level, Honors College) [repeat 1 time]

Mentoring

[1] Mallory Sorola, BS in CS, Texas A&M University–San Antonio [08/2024–Present]
- Research Project: Mitigating Generative AI's Bias

[2] Jaspal Kahlon, BS in CS, Texas A&M University–San Antonio [08/2024–Present]
- Research Project: PortrAid – Your AI-Powered Portrait Assistant

[3] Demetrio Deanda, BS in CS, Texas A&M University–San Antonio [03/2024–Present]
- Research Project: Robust Medical Imaging Report Generation

[4] Garret Crumrine, BS in CS, Texas A&M University–San Antonio [10/2023–12/2024]
- Research Project: Neural Network Cross-Modality Embedding & Calibration
- Research Outcomes: One award poster 💎
- Initial placement: Machine Leanring Engineer at NVIDIA, to start in Spring 2025.

[5] Cristian Moran, BS in CIS, Texas A&M University–San Antonio [11/2023–05/2024]
- Research Project: Traffic Fatal Crash Analysis in San Antonio Area

- Research Outcomes: One award poster 💎

[6] Jesse Guerrero, MS in CS, Texas A&M University–San Antonio [06/2022–05/2023]
- Research Project: Machine-Generated Text Detection
- Research Outcomes: One journal paper, one conference paper, and one award poster 💎
- Initial placement: PhD program at The University of Texas at San Antonio, 2024.

[7] Joshua Zyzak, BS in CS, Eastern Kentucky University [06/2022–12/2023]
- Research Project: Medical Imaging Reports Generation
- Initial placement: Graduate School at Harvard University, 2024.

[8] Eric Xing, BS in CS, Western Kentucky University [06/2021–12/2022]
- Research Project: CNN Model Uncertainty Estimation
- Research Outcomes: Two conference papers and one award presentation (podium) 💎
- Initial placement: PhD program at Washington University in St. Louis, 2023.

[9] Yunni Qu, BS in CS, University of Toronto [01/2021–12/2022]
- Research Project: Generative Model Uncertainty Estimation
- Research Outcomes: Two conference papers
- Initial placement: PhD program at The University of North Carolina at Chapel Hill, 2023.

[10] David Yan, BS in CS, University of Kentucky [12/2020–10/2022]
- Research Project: CT Image Denoising
- Research Outcomes: 1 conference paper, 2 conference posters.
- Initial placement: Software Engineer at Epic Systems Corporation, 2022.

[11] Qi Ying, MS in CS, Eastern Kentucky University [08/2020–05/2021]
- Research Project: Alzheimer's Disease Diagnosis
- Research Outcomes: 2 conference papers.
- Initial placement: Medical Imaging Engineer at University of Iowa, 2021.

Services

University Service [1]

- Services to University
  - Faculty Mentor, Graduate School, TAMUSA [Spring 2024 - Present]
  - Faculty Advisor, Asian Student Association, TAMUSA [Spring 2024 - Present]
  - Presenter, Graduation Stoles and Cords Ceremony [Spring 2024, Fall 2024]
  - Member, Search Committee, Generative AI Fellow, TAMUSA [05/2024]
  - Session Judge, The Student Research Symposium, TAMUSA [04/2023, 04/2024]
  - Instructor, Jag-AI Workshop on Machine Learning and AI Fundamentals for Researchers, TAMUSA [02/2024]
  - Activit Provider, HackSA: Hack for Social Good (Hackerthon), TAMUSA[10/2023]
  - Instructor, AI/ML Workshops (Half-Day), ACM Student Chapter, TAMUSA [03/2023]
  - Guest Speaker, IBM z System Chapter at TAMUSA [03/2023, 06/2023]
  - Faculty Advisor, Game Development Club, EKU [Fall 2020 – Spring 2022]

[1] University name abbreviation: TAMUSA – Texas A&M University–San Antonio; EKU – Eastern Kentucky University

- Service to Department
  - Member, CS-Cyber Promotion and Tenure Standards Committee, TAMUSA [Spring 2024 - Present]
  - Member, CS-Cyber Graduate Students Academic Suspension Committee, TAMUSA [Fall 2023 - Present]
  - Member, CS-Cyber Annual Evaluation Standards Committee, TAMUSA [Spring 2024]
  - Member, CS-Cyber Assistant Professor Search Committee, TAMUSA [Spring 2024]
  - Member, CS-Cyber Instructional Assistant Professor Search Committee, TAMUSA [Fall 2023 - Spring 2024]
  - Member, CS-Cyber Graduate Teaching Assistant Selection Committee, TAMUSA [Summer 2023]
  - Member, CCS Curriculum Committee, TAMUSA [Fall 2022 – Spring 2023]
  - Member, CS Curriculum Sub-Committees, EKU [Fall 2020 – Spring 2022]
  - Academic Advisor, BS in CS (Interactive Multimedia Concentration) Program, EKU [Fall 2020 – Spring 2022]

- Thesis Committee
  - Member, Ramya Jonnala, MS in CS, TAMUSA [Fall 2024 – Present]
    - Title: Measuring and Improving the Efficiency of Python Code Generated by LLMs
  - Member, Hongyu Wang, MS in CS, TAMUSA [Spring 2024 – Summer 2024]
    - Title: "Performance and Cost-Efficiency in Cloud ML Deployment: Integrated Database Functions vs External Services with Large-Scale Data"
  - Co-Chair, Jesus "Jesse" Guerrero, MS in CS, TAMUSA [Fall 2022 – Spring 2023]
    - Title: "Detecting AI Generated Text Using Neural Networks"
  - Chair, Qi Ying, MS in CS, TAMUSA [Fall 2022 – Spring 2023]
    - Title: 'Multi-Modal Data Analysis for Disease Diagnosis"

Professional Service

- Guest Editor for Journal
  - *Mathematics* (Impact Factor: 2.6, Q1) [2023 - 2024]
  - *Frontiers in Artificial Intelligence* (Impact Factor: 3.0, new journal) [2021 - 2023]

- Conferences Committee
  - Program Committee Member, *The 63rd ACM Southeast Annual Conference (ACMSE)* [2025]
  - Program Committee Member, *The 62nd ACM Southeast Annual Conference (ACMSE)* [2024]
  - Local Organizer, *The Third Intelligent Cybersecurity Conference (ICSC)* [2023]

- Reviewing for Journals
  - *IEEE Transactions on Aerospace and Electronic Systems* (Impact Factor: 5.1) [2023 – Present]
  - *IEEE Transactions on Artificial Intelligence* (Impact Factor: 7.3) [2023 – Present]
  - *IEEE Transactions on Neural Networks and Learning Systems* (Impact Factor: 14.3) [2022 – Present]
  - *IEEE Transactions on Medical Imaging* (Impact Factor: 11.1) [2022 – Present]
  - *IEEE Journal of Biomedical and Health Informatics* (Impact Factor: 7.7) [2022–Present]
  - *Computer Methods and Programs in Biomedicine* (Impact Factor: 7.2) [2021 – 2023]
  - *IEEE/ACM Trans. on Computational Biology and Bioinformatics* (Impact Factor: 4.5) [2017 – 2022]
  - *Neurocomputing* (Impact Factor: 6.0) [2016, 2018]

- Reviewing for Conferences

  - IEEE/CVF Computer Vision and Pattern Recognition Conference (CVPR) (CORE2023 Ranking: A*, H5-Index: 440) [2024 – Present]
  - European Conference on Computer Vision (ECCV) (CORE2023 Ranking: A*, H5-Index: 206) [2024 – Present]
  - British Machine Vision Conference (BMVC) (CORE2023 Ranking: A, H5-Index: 77) [2020 – Present]
  - IEEE Winter Conference on Applications of Computer Vision (WACV) (CORE2023 Ranking: A, H5-Index: 109) [2019 – Present]
  - Medical Image Computing and Computer Assisted Intervention (MICCAI) (CORE2023 Ranking: A, H5-Index: 96) [2020 – 2022]

- Keynote Speaker/Guest Speaker
  - Keynote Speaker, Global Summit on Artificial Intelligence (Webinar), Heighten Science Publications Corporation. [04/2024]
  - GSU Graduate Seminar, Governors State University, University Park, IL [03/2023]
  - Jiang Lab Symposium, Tianjin Normal University, Tianjin, China [12/2021]
  - Cyber Center Seminar, University of Texas at San Antonio, San Antonio, TX [09/2021]
  - WKU Physics and Astronomy Seminar, Western Kentucky University, Bowling Green, KY [09/2021]
  - EKU Physics and Astronomy Seminar, Eastern Kentucky University, Richmond, KY [03/2021]

Community Service

- Advisory Board
  - Alamo Inventor: Artificial Intelligence Special Interests Group, San Antonio, TX [2023 - Present]
  - Fayette County Public School Eastside Technical Center Game Development Program Advisory Committee, Lexington, KY [2021 – 2022]
- Guest Speaker
  - University of Kentucky GSACS Alumni Panel [03/2021]
- Other Community Services
  - Machine Learning Couch, RowdyHacks, The University of Texas at San Antonio [03/2023]
  - Event Coordinator, Texas Science Olympiad [03/2023]
  - Workshop Instructor, Commonwealth of Kentucky K-12 Teachers Professional Development Workshops (Half-Day) [06/2021]

Invited Talks

- “Rethinking the Excited Performance of Modern Neural Networks”, Global Summit on Artificial Intelligence by HSPI (Webinar). [Apr. 2024]
- “Neural Networks Beyond Cat/Dog Classification.” GSU Graduate Seminar, Governors State University, University Park, IL. [Mar. 2023]
- “Modern Neural Networks and Medical Imaging Analysis,” Jiang Lab Symposium, Tianjin Normal University, Tianjin, China (virtual). [Dec. 2021]
- “Adopting CNN in Clinical Practice is Hard: Potential Challenges of Medical Imaging Analysis with Modern Neural Networks.” UTSA Cyber Center Seminar, University of Texas at San Antonio, San Antonio, TX. [Sep. 2021]

- “Optical Wavelength Guided Self-Supervised Feature Learning.” WKU Physics and Astronomy Seminar, Western Kentucky University, Bowling Green, KY. [Sep. 2021]
- “Introduction to Image Analysis w/ Convolutional Neural Networks.” Professional Development Workshops for K-12 Teachers, Kentucky Education Department, Richmond, KY (virtual). [Jun. 2021]
- “Convolutional Neural Network for Galaxy Cluster Analysis.” EKU Physics and Astronomy Seminar, Eastern Kentucky University, Richmond, KY. [Mar. 2021]
- “Your 1st Game: Simple Shooting Gallery Game w/ MonoGame.” EKU Computer Science Living Learning Community, Eastern Kentucky University, Richmond, KY. [Feb. 2021]
- “General Introduction to Convolutional Neural Network.” EKU Computer Science Living Learning Community, Eastern Kentucky University, Richmond, KY. [Nov. 2020]
- “Improved Trainable Calibration Method for Neural Networks on Medical Imaging Classification.” Harrison Lab Research Talk, University of Kentucky, Lexington, KY. [Oct. 2020]

Certificate/Training

- Culturally Responsive Practices for STEM Faculty Teaching Latinx Students, ESCALA Education Services, 2024
- Effective College Instruction, the Association of College and University Educators (ACUE) and the American Council on Education, 2023
- Online Course Development and Teaching Certificate (Quality Matters), Eastern Kentucky University, 2021
- Deep Learning Specialization Certificate, DeepLeanring.ai, 2020
- Military Cultural Awareness Training, Eastern Kentucky University, 2020

Memberships

- Institute of Electrical and Electronics Engineers (IEEE)
- IEEE Engineering in Medicine and Biology Society
- Association for Computing Machinery (ACM)