EMORY UNIVERSITY SCHOOL OF MEDICINE
STANDARD CURRICULUM VITAE
Judy Wawira Gichoya, MBChB MS

Revised: September 10, 2022

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4. Current Titles and Affiliations:

    a. Academic Appointments:

        1. Primary Appointments:

            Assistant Professor of Radiology & Imaging Sciences,
            Emory University   2019 - present

        2. Joint and Secondary Appointments:

            1. Assistant Professor of Biomedical Informatics,
                Emory University   2019 - present
            2. Adjunct Faculty,
                Indiana University Purdue University (IUPUI)
                School of Informatics and Computing   2020 - 2025
            3. Adjunct Faculty,
                Emory Laney School of Computer Science & Informatics 2021- present
            4. Associate Scholar, Stanford Center for Artificial Intelligence in
                Medicine and Imaging (AIMI center)   2021 - present

    b. Clinical Appointments:

        1. Attending Physician   2019 - present
            The Emory Clinic and Emory Healthcare (all locations)
        2. Attending Physician   2019 - present
            Grady Health System,
            Division of Interventional Radiology Department of
            Radiology & Imaging Sciences
        3. Attending Physician   2021 - present
            Emory Decatur and Hillandale Hospitals

    c. Other Administrative Appointments:

1. Open-source maintainer, LibreHealth Radiology   2015 - present
2. Associate Researcher, Purkayastha Lab for Health
   Innovation, IUPUI   2016 - present
3. Co-Director, Healthcare Innovation and Translation
   Informatics (HITI) lab, Emory   2019 - present

5. Previous Administrative and/or Clinical Appointments:

   1. Interim Site Director   2020 – 2021
      Grady Health System, Division of Interventional Radiology
      Department of Radiology & Imaging Sciences

6. Licensures:

   Indiana State Medical License (active)   2015 - present
   Georgia State Medical License (active)   2019 - present

7. Boards and Specialty Boards:

   1. American Board of Radiology (ABR)
      Certificate in Diagnostic Radiology   2019
   2. American Board of Radiology (ABR)   2021 - present
      Combined Certificate in Interventional Radiology and
      Diagnostic Radiology meeting requirement of
      Maintenance of Certification
   3. The American Board of Preventive Medicine   01/01/2022 - 12/01/2031
      Clinical Informatics

8. Education:

   MBChB, Bachelor of Medicine & Surgery, Moi University, Eldoret, Kenya   2009
   MS, Master's in Health Informatics, IUPUI   2012

9. Postgraduate Training:

   1. Clinical informatics fellowship, Regenstrief Institute, Indianapolis, IN   2011 – 2012
      Supervisor: Shaun Grannis MD
   2. Diagnostic Radiology Residency, Indiana University, Indianapolis, IN   2013 – 2018
      Program Director: Dr. Darel Heitkamp
   3. Interventional Radiology Fellowship, Oregon Health Sciences
      University, Portland, OR   2018 – 2019
      Program Director: Dr. Ryan Schenning

10. Continuing Professional Development Activities:

    1. American College of Radiology (ACR) Radiology Leadership Institute   2015
    2. Introduction to Academic Radiology (ITAR)   2016
    3. Academy Council for Early Career Investigators in Imaging (CECI2) Early
       career investigators   2020 - 2021

4. Exploring Everyday Bias – an interactive leadership workshop
    Radiological Society of North America (RSNA)   2020
5. Peer review excellence workshop – IOP publishing trusted reviewer program   2021
6. Association of American Medical Colleges (AAMC) Minority Faculty Leadership
    Development Seminar   2021
7. Emory University School of Medicine Faculty Development Program: Under-
    Represented in Medicine (URiM)   2021
8. TD-MDAL scholar at the National Bureau of Economic Research AI conference   2022

11. Military or Government Service:

    Intergovernmental Personnel Act (IPA)   2021 - 2023
    Data Science Scholar to the National Institute of Health (NIH) Fogarty
    Institutes and National Institute of Biomedical Imaging (NBIB)

12. Committee Memberships:

    a. National and International:

        1. Co-chair, Society of Imaging Informatics in Medicine (SIIM)
            Global Outreach Committee   2016 – 2021
        2. Member, American College of Radiology (ACR)
            Resident and Fellows International subcommittee   2016 – 2019
        3. Member, RSNA Common Data Elements (CDE)Committee   2018 – 2024
        4. Member, RSNA Committee on International Radiology
            Education (CIRE)   2018 - present
        5. Member, SIIM Awards Committee   2018 - present
        6. Member, SIIM Nominating Committee   2018 – 2021
        7. Member, ACR Informatics Advisory Council   2019 - present
        8. Member, SIIM Hackathon Committee   2019 - present
        9. Member, SIIM Machine Learning Education Sub-Committee   2020 – 2022
        10. Member, ACR Information Technology Commission   2020 - present
        11. Member, ACR International Commission (liaison from the ACR
            Information Technology Commission)   2020 - present
        12. Co-chair, Medical Imaging and Data Resource Center (MIDRC)
            bias and diversity working group   2021 - present
        13. Member, National Institutes of Health (NIH) center for biomedical
            informatics and information technology medical image de-identification
            task group (MIDI TG)   2021 - present
        14. Co-chair, Society of Imaging Informatics in Medicine (SIIM) Research
            Committee   2022 - present
        15. Member, ACR Pipeline Initiative for the Enrichment of Radiology
            Program (PIER) Admissions working group   2022 -present
        16. Member, Society of Interventional Radiology (SIR) Foundation/
            NIH task force   2021 - present
        17. Emerging Leaders Club, International Society for Strategic
            Studies in Radiology   2023 - 2027

    b. Regional:
        1. Philips-Emory Interventional Radiology Innovation working group   2020 - present
        2. Emory University (Provost office) and Microsoft research

partnership meeting   Oct 2021

   c. Institutional:

1. Member, Grady Health System Trauma Review Committee   2020 - 2021
2. Member, Grady Health System Central Line Associated
   Bacterial Infections (CLABSI) Committee   2020 -2021
3. Member, Grady Health System Thrombosis Committee   2020 - present
4. Member, Grady Health System Radiology Invasive
   Procedures Workgroup   2021
5. Member, Emory Healthcare Epic Journey Research
   Analytics Operational Workgroup   2021 - present
6. Member, Emory University AI. Humanity Advisory Group   2022 - present
7. Member, Emory University Science Gallery Atlanta   2022 - present
8. Member, Emory Healthcare predictive model adoption
   technical panel   2022 - present
9. Member, Emory University forward thinking Ed
   programming working group   2022 - present
10. Member, Emory University Epic research analytics governance
    working group   2022 - present

13. Peer Review Activities:

   a. Grants:

      a. National and International:

1. National Science Foundation (NSF) Multimodal Sensor
   Systems for Precision Health Enabled by Data harnessing,
   Artificial Intelligence and Learning (SenSE) Panel   2020
2. Harvard University Global Health Institute – Google Cloud \
   Platform Research (GCPR) Credits Award   2020
3. Health Research Council of New Zealand   2021
4. Blacks in Artificial Intelligence summer grants   2021
5. RSNA research and education grants   2022
   (Trainee Study Section)
6. NSF SBIR/STTR (Small Business Innovation Research,
   Small Business Technology Transfer) program   2022
7. Lacuna Fund Climate change and Health proposal review   2022
8. National Institutes of Health (NIH) SBIR/STTR
   Small business grants: Computational, Modeling and
   Biodata management   2022

      b. Institutional:

1. Emory School of Medicine Radiology Department Seed Awards   2021
2. Emory School of Medicine - Program for Retaining, Supporting,
   and EleVating Early-career Researchers (PeRSEVERE)   2022

   b. Manuscripts:

1. Journal of Digital Imaging (JDI)   2018 - present
2. Journal of the American College of Radiology (JACR)   2018 - present
3. NPJ Nature Digital Medicine   2019 - present
4. American Journal of Roentgenology (AJR)   2019 - present
5. Journal of Vascular and Interventional Radiology (JVIR)   2020 - 2021
6. Radiology: Artificial Intelligence   2020 - present
7. Clinical Imaging   2020
8. Digestive Disease Interventions (DDI)   2021
9. Gut   2021
10. Journal of Thoracic Imaging (JTI)   2021
11. CardioVascular and Interventional Radiology (CVIR)   2021
12. Journal of Clinical Epidemiology   2020 - 2021
13. Nature Digital Medicine   2022

c. Conference Abstracts:

a. National and International:

1. SIIM Conference, Denver, CO   2019
2. Black in AI 3rd Annual Workshop, Vancouver, Canada   2019
3. SIIM Conference (Virtual)   2020
4. ICLR (International Conference on Learning Representations) Workshop - Machine Learning in Real Life   2020
5. AMIA (American Medical Informatics Association) Virtual Annual Symposium   2020
6. NeurIPS (Neural Information Processing Systems) 2020 workshop – Machine Learning for the Developing World (ML4D): Improving Resilience   2020
7. ICLR Workshop - Machine Learning for Preventing and Combating Pandemics   2021
8. ICLR Workshop - Practical ML for Developing Countries: learning under limited/low resource scenarios   2021
9. SIIM Conference (Virtual)   2021
10. SIIM Conference, Washington DC   2022
11. Global Forum on Bioethics in Research (GFBR)   2022
12. Annual Conference on Health, Inference and Learning (CHIL)   2022
13. Pacific Symposium on Biocomputing   2022

d. Others:

a. National and International:

1. Interventional Radiology Question Writer and Reviewer Road2IR/Muhimbili University of Health and Allied Sciences (MUHAS)   2020, 2021, 2022
2. Oral Boards Examiner Road2IR/ Muhimbili University of Health and Allied Sciences (MUHAS) Interventional Radiology   2020, 2021 2022

14. Consultantships/Advisory Boards:

    1. Advisory Board, American College of Radiology (ACR) Artificial
       Intelligence Advisory Group   2017 – present
    2. Advisory Board, ACR FDA Cleared AI Algorithms   2021 – present
    3. Board of Directors, Association for Health, Learning and
       Inference (AHLI)   2021 – present
    4. External Advisory Board, National Cancer Institute (NCI)
       Imaging Data Commons   2021 – present
    5. External Advisory Board, Cincinnati Children's image-based
       AI project   2021 – present
    6. Member at large, Health Level 7 (HL7) Board   2022 – present
    7. Member at large, Society of Imaging Informatics (SIIM) Board 2022 – present
    8. External Advisory Board, Stanford LEDE project   2022 – present

15. Editorships and Editorial Boards:

    1. Editorial Board, Journal of Digital Imaging   2018 – present
    2. Program Director, RSNA (Radiology Society of North America)
       Radiology:AI Journal Trainee Editorial Board   2019 – present
    3. Special Issue Editor, British Medical Journal (BMJ) Health & Care
       Informatics - Operationalising Fairness in Medical Algorithms 2020 – 2021
    4. International Advisory Board, The Lancet Digital Health   2021
    5. Section Editor, PLOS Digital Health   2021 – present
    6. Special Issue Editor, Journal of Medical Imaging (JMI)
       Global Health - Bias & Diversity in AI in Medical Imaging 2021 – present
    7. Editorial Board, New England Journal of Medicine (NEJM)
       AI journal   2022 – present

16. Honors and Awards:

    1. Emory School of Medicine Researcher Appreciation Day
       Recognition   2019
    2. Emory School of Medicine Outstanding Patient Care Award
       Junior Faculty   2020
    3. Aunt Minnie most influential radiology researcher   2021
    4. Aunt Minnie Roadie award for the most viewed abstract
       in the Imaging Informatics section at the 2021 RSNA
       annual meeting   2021

17. Society Memberships:

    1. American Medical Informatics Association (AMIA)   2011 – 2012
    2. Radiology Society of North America (RSNA)   2012 – present
    3. American College of Radiology (ACR)   2014 – present
    4. Society of Imaging Informatics in Medicine (SIIM)   2015 – present
    5. Society of Interventional Radiology (SIR)   2016 – present
    6. Blacks in Artificial Intelligence (Blacks in AI)   2018 – present
    7. Georgia Radiological Society   2019 – present
    8. Emory School of Medicine African American Women

Collaborative (AAWC) Faculty Affinity Group   2021 – present

18. Organization of Conferences:

    a. National and International:

        a. Administrative Positions:

1. Organizer, American College of Radiology (ACR) Resident and Fellows Artificial Intelligence Journal Club   2017 – 2019
2. Organizing & Program Committee, 2nd Black in AI Workshop, NeurIPS   2018
3. Program Committee, 1st Practical Machine Learning for Developing Countries Workshop at ICLR, Ethiopia (Virtual)   2020
4. Program Committee, Machine Learning in Real Life (ML-IRL) Workshop, ICLR, Ethiopia (Virtual)   2020
5. Program Committee, Data Science & AI Summit for Healthcare (DASH) in Africa, Rwanda.   2020
6. Program Committee, Machine Learning for the Developing World (ML4D) Workshop: Improving Resilience at ICLR, Ethiopia (Virtual)   2020
7. Program Committee, Society of Imaging Informatics (SIIM) annual meeting   2020
8. Co-organizer, Mogeni and Gichoya Notes   2020
      Preparatory Lectures for Medical Students in Kenya and Sub-Saharan Africa Preparing for USMLE exams
9. Saw Swee Hock School of Public Health, National University of Singapore Healthcare AI Datathon and Expo, Singapore   2020,2021,2022
10. Organizing & Program Committee, 2nd Workshop on Practical ML for Developing Countries: learning under limited/low resource scenarios at ICLR 2021 (Virtual)   2021,2022
11. Organizing & Program Committee, 1st Workshop on Machine Learning for Preventing and Combating Pandemics at ICLR 2021 (Virtual)   2021
12. Program Committee, Society of Imaging Informatics (SIIM) annual meeting   2021
13. Organizer, Interpretable Machine Learning in Healthcare workshop at the 38th International Conference on Machine Learning (ICML)   2021
14. Program Committee, Machine Learning for the Developing World (ML4D) Workshop at NeurIPS annual meeting   2021
15. NIH Data science Africa (DSI-Africa) consortium annual meeting   2021,2022
16. Organizing Committee, Conference on Health, Inference and Learning (CHIL), April 7-8th 2022 (Virtual)   2022
17. Organizer, The 1st Workshop on Healthcare AI and COVID-19 at ICML 2022   2022
18. Planning Committee, Global Forum on Bioethics in Research (GFBR), Cape Town, South Africa   2022
19. Organizer, Critical care data analysis summit and Tarragona datathon, Spain   2022

        b. Sessions as Chair:

1. Imaging Informatics Beyond Borders: 2 Years of the SIIM Global Ambassador Program, SIIM (Society of Imaging Informatics in Medicine) annual meeting, Jun 24th - Jun 25th,2020 (Virtual)
2. Moderator: Fireside chat with Andrew Ng "AI as the fourth industrial revolution", Stanford Artificial Intelligence in Medical Imaging (AIMI) symposium, Aug 5th, 2020 (Virtual)
3. SIIM Imaging informatics in underserved communities through the COVID-19 Pandemic, Society of Imaging Informatics in Medicine (SIIM) annual meeting, May 24th, 2021 (Virtual)
4. Moderator, Ethics of AI safety, reliability and patient protection, Bioethics, the Law, and Data-Sharing: AI in Radiology (BOLD-AIR) Summit, Aug 4th, 2021 (Virtual)
5. Moderator: Artificial Intelligence Solutions, American College of Radiology (ACR) Informatics Summit, Oct 16th, 2021 (Virtual)
6. Moderator: When machines fail. Radiology Society of North America (RSNA) annual conference, Nov 30th, 2021, Chicago, IL.

19. Clinical Service Contributions:

<u>2019– 2020</u>

1. Investigated and corrected loss of radiology revenue at Grady Health System arising from changes in Powerscribe, Epic and Alife integration that led into incorrect routing of studies for professional billing.
2. Improve Interventional Radiology procedure workflow in the Airflow™ system to capture cross sectional procedures with subsequent triage into the correct procedure room.

<u>2020</u>

1. Integrated cross-sectional procedures from the body division to interventional radiology at Grady Health System.
2. Supported the trauma certification maintenance by improving documentation of trauma response times by interventional radiology and case review for morbidity and mortality conferences.
3. Developed and implemented an adjudication process for prioritizing all procedures in interventional radiology in response to COVID-19 surge.
4. Introduced a new service line for ablative therapies for pain and palliation for Grady patients.
5. Streamlined interventional radiology consumables to reduce waste and increase readiness for mass casualty response during riots in Atlanta.
6. Improved hand off of call cases by implementing a Microsoft Teams documentation and communication system. This allows for situational awareness throughout the weekend and inclusive messaging available to all members of the day team.
7. Collaborated with Anesthesia Department on optimizing and integrating anesthesia services into Grady Health System Interventional Radiology daily schedule. Developed policy governing nursing support for anesthesia department in radiology.

<u>2021</u>

1. Assisted with planning of migration to new rooms for the Interventional Radiology suite including working with the contractors, equipment management and review, 5S quality project for stocking IR supplies and staff (nursing and technology) training.

1. Collaborated with Grady Health System supplies and equipment team to streamline approval process for bringing new products into the department and optimize the MedApprove process. This reduced waste and shortened the turnaround time for approving new items required.

2022

1. Co - Established the "Fabian Laage Gaupp" Scholarship in MUHAS / MNH Tanzania – 2K awarded to the IR resident who best exemplifies the qualities of a good role model by taking an active role in spreading Interventional Radiology globally, in education of the other residents whether in the clinic, in the procedure room, or elsewhere. This honor offers the trainee a unique opportunity to distinguish themselves both within our program and once they enter the profession of Interventional Radiology
2. Collaborating with Ministry of Health Republic (Sec. Dr Patrick Ndimubanzi and First IR attending in Rwanda Dr Ivan Rukundo) of Rwanda through bilateral arrangement with Emory University to establish Interventional Radiology educational training programs at Rwanda Military Hospital and King Faisal Hospital and eventually other teaching hospitals in the country
3. Partnering with University of Rwanda (Dean Jean Claude Byiringiro and First IR attending in Rwanda Dr Ivan Rukundo) to provide training, education, and research in Interventional Radiology to Doctors, Technologist and Nurses through dedicated curriculum sponsored by Emory University, Road2IR and the Human Resource for Health Secretariat
4. Working with Benjamin Mkapa Hospital (Executive Director Dr Alphonce Chandika and Staff Interventional Radiologist Dr Furaha Malecela Francis) to initiate, establish and grow quality specialized minimally invasive procedures in Radiology within Dodoma, Capital of Tanzania. These would include health services, for which its citizens travel out of country to receive. By offering these services at Benjamin Mkapa Hospital, the financial government burden would decrease substantially, resulting from decreasing the numbers of patients referred abroad.
5. Establishing Interventional Oncology services at Ocean Roads Cancer Institute (ORCI), Dar es Salaam, Tanzania. In conjunction with Road2IR and Dr Latifa Rajab (New Interventional Radiologist), we are providing daily consultation services, organizing, and implementing multi-disciplinary discussions (tumor boards), and building a research infrastructure /database with my lab (HITI) and Emory IR to charter a Liver Cancer Center of Excellence in this tertiary care medical facility, the largest comprehensive cancer center in the country of Tanzania.

20. Community Outreach:

    a. General:

        1. Support implementation and use of Ampath Medical Records System (AMRS) in Western Kenya in 70 clinics caring for 160,000 HIV patients   2008 - 2013
        2. Maintain CIEL (Columbia International eHealth Laboratory) concept dictionary available in 16 languages and used as interface terminology for OpenMRS, OpenSRP and WHO   2015 - present
        3. Volunteer monitor for the IHE (Integrating the Healthcare Enterprise) North America connectathon – Integrating radiology profiles for reporting and imaging exchange   2016
        4. Upgrade mobile radiology truck in Eldoret, Kenya to use digital radiology to

support workflow to test machine learning detection of tuberculosis on CXRs 2016

5. Integrate PACS/RIS into the Ampath Medical Records System in Eldoret, Kenya to allow point of care CXR viewing 2018
6. Formed MURA-D group of radiologists and deep learning scientists from North America and Europe to annotate the MURA musculoskeletal dataset for open-source release for deep learning 2018

  b. Media Appearances:

   1. Podcast, TWIML (This week in machine learning) – "Phronesis of AI in radiology", Jun 2019
   2. Wired Article – "These Doctors are Using AI to Screen for Breast Cancer", Jan 2021
   3. MIT News – "Robust Artificial Intelligence tools to predict future cancer", Jan 2021
   4. Podcast, MaML – Medicine & Machine Learning Podcast – Open Source EMR platforms and Utilizing AI to Combat Bias in Medicine, Feb 2021
   5. Wired Article – New Algorithms Could Reduce Racial Disparities in Health Care , Feb 2021
   6. Podcast, Radiology: Artificial Intelligence Journal Mar 2021 Episode 10: NIH Data Scholar Program at Fogarty and Radiology: AI Trainee Editorial Board
   7. Panelist - Creating exceptional women leaders: the missing links of mentorship and networking, Harvard Global Health Institute webinar series, Mar 2021
   8. Vice - AI can guess your race based on X-Rays, and researchers don't know How, Aug 2021
   9. The Batch – AI Sees Race in X-Rays , Aug 2021
   10. Aunt Minnie - Is radiology AI technology racist? , Aug 2021
   11. Wired – These algorithms look at X-Rays – and somehow detect your race, Aug 2021
   12. The Imaging Wire – Reading Race, Aug 2021
   13. Blog – AI has the worst superpower … medical racism, Aug 2021
   14. SIIM Podcast - AI racial identification, Nov 2021
   15. RSNA member spotlight: Judy Wawira Gichoya, MBChB   , Feb 2022
   16. NIH Bring your child to work day – Write code save lives, digital innovation for ..., Mar 2022
   17. ABC Denver Channel 7 – Study shows AI deep learning models can detect …, May 2022
   18. Emory University Magazine Spring/Summer 2022 – Machine Mind Human Heart, Jun 2022
   19. Emory University Blog – AI, Team science and Emory Radiology: …, Jun 2022
   20. Medscape Podcast - Hidden in Plain Sight: If AI Can Detect Race …About Bias?, Jul 2022
   21. Stat News - Creating AI That Improves Health, Aug 2022

21. Formal Teaching:

  a. Medical Student Teaching:

   1. Emory University School of Medicine MS4 Clinical elective: Artificial Intelligence & Machine Learning in Medicine (Offered 12 months/yr, 10 hrs/month) 2020 - present

2. Emory University Medical Students Endocrinology and Reproductive
Health Module/ Clinical Pathologic Correlation (CPC) lecture on
"Uterine Artery Embolization" (2 hrs/yr)   2020, 2021
3. Einstein Medical School: Machine Learning in Real Life (1 hr/yr).   2021
4. Emory University School of Medicine MS2 Health Systems Sciences course
     Served as group advisor over curriculum course (5 hrs/yr)   2021
5. Emory EMPACT (**E**ngage, **M**entor, **P**repare, **A**dvocate for, **C**ultivate,
and **T**each **U**nderrepresented **M**inorities) (5 hrs/yr).   2021
6. American College of Radiology (ACR) Pipeline Initiative for the
Enrichment of Radiology (PIERS) program (4 hrs/yr)   2021
7. Universities Allied for Essential Medicines lecture series (2 hrs/yr) 2021
   - Artificial Intelligence and Machine Learning: Opportunities,
    Pitfalls, and Disparities in Healthcare
8. Emory School of Medicine Lunch Time Teaching sessions (1 hr/yr) 2021
   Introduction to radiology, - Past present and Future
9. Emory University School of Medicine M2 elective:
Artificial Intelligence & Machine Learning in Medicine
(Offered 6 months/yr, 10 hrs/month).   2022 – present

  b. Graduate Programs:

    a. Residency Programs:

      1. Radiology Resident Lectures Cornell University
        Artificial Intelligence for Global Health (1 hour)   2020
      2. Radiology Resident Lectures Emory University
        Machine Learning in Real Life (1 hour)   2020
      3. Interventional Radiology Grand Rounds, Emory University (1 hour)
        Postpartum hemorrhage. Sound the alarm: another mother is dying. 2020
      4. Radiology Resident Lectures Emory University
        Resident Track Resident Meeting (1 hour)   2021
      5. Morehouse school of medicine internal medicine radiology bootcamp (2hrs)
        A gentle approach to imaging   2021
      6. Emory at Grady internal medicine resident Lectures (5 hrs /yr)
        Approach to gastrointestinal bleeding   2021
        Chest radiology   2021
        Management of pulmonary embolism   2021
        Inferior venacava filters   2021
      7. Radiology Resident Informatics Track research meeting, (12 hrs / yr)
        Overview of the HITI lab   2022

    a. Fellowship Programs:

      1. Emory University School of Medicine Interventional Radiology ACGME
        Fellowship weekly Thursday grand rounds (4hrs/year)   2019 - present
          - Adulting: navigating faculty and first job
          - Post-Partum hemorrhage – Sound the alarm – Another mother is
            dying!

  c. Master's and PhD Programs:

1. Emory University School of Computer Science and Informatics (CSI) CS 497R (Computer Science Research project) 2022

   d. Other Categories:

   1. Radiological Society of North America – Society for Imaging Informatics in Medicine (SIIM) National Imaging Informatics Course (NIIC) 2021
      "What is unsupervised machine learning, and does it have a role in radiology?"
   2. Radiology Society of North America (RSNA) Imaging AI certificate program (5 hrs/yr)
      Pitfalls for model building such as overfitting 2021
      Metrics for model performance 2021
      International/ developing world AI 2022
   3. McGill Digital Health Course (1 hr)
      The harm of NOT sharing health data 2022

22. Supervisory Teaching:

   a. PhD Students Directly Supervised:

   1. Upol Ehsan 2019 – 2021
      Program: Georgia Institute of Technology, School of Interactive Computing.
      Current: PHD in Human Computer Interaction with a focus on HCI
      (human factors of explainabilty in AI systems)
   2. Xiaoyuan Guo 2020 –present
      Program: Emory University Computer Science & Informatics (CSI)
      Current: PHD Computer Science at Emory CSI
      Awards: Schoettle Graduate Research Award, Emory University
      Laney School of Computing
   3. Ramon Correa 2020 – 2021
      Program: Emory University Computer Science & Informatics (CSI).
      Current: PHD Computer Science at Arizona State University
   4. Thiago Santos 2020 - present
      Program: Emory University Computer Science & Informatics (CSI)
      Current: PHD Computer Science at Emory CSI
   5. Jiwoong Jeong 2020 - present
      Program: Emory University Computer Science & Informatics (CSI)
      Current: PHD Computer Science at Arizona State University
   6. Andrew ElHabr 2020 – 2022
      Program: Georgia Institute of Technology, School of Industrial and Systems
      Engineering (IsyE) - PHD in Operations Research
      Current: Data Scientist, Value Analytics Labs.
   7. John LeRoy Burns 2020 - present
      Program: IUPUI
      Current: PHD in Health Informatics, IUPUI
   8. Adam Yala 2021 -present
      Program: Massachusetts Institute of Technology (MIT) Computer Science and
      Artificial Intelligence Lab (PHD in Computer Science).
      Current: Assistant Professor of computational precision health and EECS at UC
      Berkeley/UCSF

b. Postdoctoral Fellows Directly Supervised:

1. Amara Tariq   2020 – 2021
   Program: Emory University Biomedical Informatics (BMI) Post Doc
   Current: Research scientist at Arizona State University
2. Pradeeban Kathiravelu   2020 – 2022
   Program: Emory University Biomedical Informatics (BMI) Post Doc
   Current: Post-doctoral fellow at Emory University BMI
3. Mohammad Masum   2021
   Program: Emory University Department of Radiology Post Doc
   Current: Post-doctoral fellow at Kennesaw State University
4. Asare Sarpong   2021 – 2022
   Program: Emory University Department of Radiology Post Doc
   Current: Post-doctoral fellow at Emory University Radiology Department

c. Residency Program:

1. William Wagstaff, MD, Emory University, Atlanta   2019 – 2021
   Current: Neuroradiology fellow at Emory School of Medicine, Atlanta
2. Brianna Vey, MD (Mentor), Emory University, Atlanta   2019 - present
   Current: PGY 5 Radiology resident at Emory School of Medicine, Atlanta
3. Mohammed Elsayed, MD (Mentor), Emory University, Atlanta   2019 - 2020
   Current: Interventional Radiology Fellow at Memorial Sloan Kettering
4. Sina Mazaheri, MD, (Mentor), Emory University, Atlanta   2020 -present
   Current: Radiology resident at Emory School of Medicine, Atlanta
5. Omar Kallas, MD, Emory University, Atlanta, GA   2020 - 2021
   Current: Staff, Diagnostic Radiology, Private Practice, San Diego
6. Jeffrey Bodner, MD, (Mentor), Emory University, Atlanta   2020
   Current: Radiology Resident at Emory School of Medicine, Atlanta
7. Fiza Khan, DO, (Mentor), Emory University, Atlanta   2020 - present
   Current: Radiology Resident at Emory School of Medicine, Atlanta
8. Pratik Vasant Rachh, MBChB, (Mentor), Emory University, Atlanta   2021- present
   Current: PGY 2 Diagnostic Radiology Resident – Molecular Imaging Track,
9. Courtney Meyer, MD (Mentor)   2021– present
   Current: PGY 2 Surgery resident
10. Brandon Price MD, (Mentor) Florida State University, Tallahassee, FL 2022– present
    Current: PGY 1 Radiology resident at Florida State University

d. Thesis Committees:

1. Bhavani, Singh, Master's Thesis, School of Informatics, IUPUI,   2019
   "Multi-label Natural Language Processing to Identify Diagnosis and Procedure
   Codes from MIMIC -III inpatient notes"
2. Pisati Tejaswini, Master's Thesis, School of Informatics, IUPUI   2019
   "Applying Deep Learning Algorithms for radiologist decision support to detect
   edema in Chest X-Rays"
3. John LeRoy Burns, Master's Thesis, School of Informatics, IUPUI,   2020
   "Instant Messaging Supporting Decision Support Interventions, a radiologist centric
   study".
   Awards: Distinguished Master's Thesis Award in the category of mathematics,
   physical sciences and engineering at IUPUI

4. Jahnavi Pinnamraju, Master's Thesis, School of Informatics, IUPUI,   2021
    "Evaluating LibreHealth cost of care application to provide patient-friendly costs of
    care among the uninsured and underinsured population",
5. Regina Merine, Master's Thesis, School of Informatics, IUPUI,   2022
    "An open web app CDSS tool to improve healthcare decision making in diagnosis
    and providing evidenced based treatment",
6. Ziwei Dong, PHD student, Emory School of Computer Science and
    Informatics   2022 - present
    "Algorithmic bias mitigation facilitated through an interactive visualization system"

e. Fellowship Program:

1. Abie Eweka, MD (Mentor)   2019 – 2020
    Interventional Radiology Fellowship at Emory University Program: One-on-One
    Mentoring
    Current: Attending Physician-Envoy Travel Program, Envision Physician Services,
    Current Deployment at Gulf Coast Regional Medical Center, Panama City, Florida.
2. Mohammed Loya, MD (Mentor)   2019 – 2020
    Interventional Radiology Fellowship at Emory University Program: One-on-One
    Mentoring
    Current: Interventional Radiologist at Kaiser Permanente
3. Peter Park, MD (Mentor)   2019 - 2020
    Interventional Radiology Fellow (Emory University) Program: One-on-One Mentoring
    Current: Assistant Professor of Interventional Radiology- Emory University Radiology
    Department
4. Patricia Balthazar, MD (Mentor)   2019 – 2020
    Abdominal Radiology Fellow (Harvard University) Program: One-on-One Mentoring
    Current: Assistant Professor of Radiology- Emory University Radiology Department
5. Alex Dabrowiecki, MD, RPVI (Mentor)   2019 – 2021
    Interventional Radiology (Oregon Health Sciences University)
    Current: Interventional Radiologist, Radiology Associates, Eugene, Oregon
6. Eric Mbuguje, MD, MMED (Mentor)   2020 - 2021
    Interventional Radiology Fellow (Muhimbili University of Health and Allied Sciences)
    Road2IR Program
    Current: Interventional Staff Radiologist, Muhimbili University, Dar es Salaam,
    Tanzania
7. Ivan Rukundo, MD, MMED (Mentor)   2020 - 2021
    Interventional Radiology Fellow (Muhimbili University of Health and Allied Sciences)
    Road2IR Program
    Current: Consultant Diagnostic & Interventional Radiologist, Department of
    Radiology,
    Rwanda Military Hospital, Kigali, Rwanda
8. Azza Naif, MD, MMED (Mentor)   2020 - 2021
    Interventional Radiology Fellow (Muhimbili University of Health and Allied Sciences)
    Road2IR Program
    Current: Interventional Staff Radiologist, Muhimbili University, Dar es Salaam,
    Tanzania
9. Ofonime Nkechinyere Ukweh, MBBCH, FWAS (Mentor)   2020 - 2022
    Interventional Radiology Fellow (Muhimbili University of Health and Allied Sciences)
    Road2IR Program

Current: Interventional Staff Radiologist, University of Calabar teaching hospital, Nigeria

10. Abizer Zoeb Sarkar, MD, MMED (Mentor)   2020 - 2022
Interventional Radiology Fellow (Muhimbili University of Health and Allied Sciences) Road2IR Program
Current: Interventional Radiologist, (private practice) Dar es Salaam, Tanzania

11. Latifa Rajab Adbulla, MD, MMED (Mentor)   2020 - 2022
Interventional Radiology Fellow (Muhimbili University of Health and Allied Sciences) Road2IR Program
Current: Interventional Radiologist, Ocean Road Cancer Institute (ORCI), Honorary Lecturer MUHAS, Dar es Salaam, Tanzania

12. Praygod Justin Lekasio, MD, MMED (Mentor)   2020 - 2022
Interventional Radiology Fellow (Muhimbili University of Health and Allied Sciences) Road2IR Program
Current: Interventional Radiologist, Mwananyamala Regional Referral Hospital, Dar es Salaam, Tanzania

13. Furaha Malecela "Baba Ana" Fransic MD, MMED (Mentor)   2020 - 2022
Interventional Radiology Fellow (Muhimbili University of Health and Allied Sciences) Road2IR Program
Current: Interventional Radiologist, Benjamin Mkapa Hospital, Dodoma, Tanzania

14. Ziad Abdul MD, MMED (Mentor)   2020 - 2022
Interventional Radiology Fellow (Muhimbili University of Health and Allied Sciences) Road2IR Program
Current: Interventional Staff Radiologist, Muhimbili National Hospital, Muhimbili University, Dar es Salaam, Tanzania

15. Balowa Musa Baraka MD, MMED (Mentor)   2020 - 2022
Interventional Radiology Fellow (Muhimbili University of Health and Allied Sciences) Road2IR Program
Current: Interventional Staff Radiologist, Muhimbili National Hospital, Muhimbili University of Health, and Allied Sciences (MUHAS), Dar es Salaam, Tanzania

16. Mohammed Elsayed, MD (Mentor), Emory University, Atlanta, GA   2021 - 2022
Current: Interventional Radiology/Oncology Fellow at Memorial Sloan Kettering Cancer Center, New York

f. Other:

1. Priyanshu Sinha (Mentor)   2018 - present
Healthcare Innovations and Translational Informatics (HITI) lab research intern
Current: Masters Student, Indiana University Purdue University (IUPUI)

2. Jie Lin (Mentor)   2019
Program: Emory University Computer Science & Informatics (CSI)
Current: PHD in Computer Science at University of Florida

3. Adejuma Tobiloba (Mentor)   2020
Healthcare Innovations and Translational Informatics (HITI) lab research intern
Current: PHD student in Biomedical Engineering, University of Illinois Chicago

4. Chima Okechukwu (Mentor)   2020 - present
Program: Georgia Institute of Technology (Georgia Tech) School of Computing
Current: Master's student – Computer Science Georgia Tech

5. Zach Zaiman (Mentor)   2020 - present
Program: Emory SIRE (Scholarly Inquiry and Research Experience) scholar,

Emory University Computer Science & Informatics (CSI)
Current: Undergraduate student – Computer Science

6. Rohan Pandey (Mentor)   2020 - 2021
   Healthcare Innovations and Translational Informatics (HITI) lab research intern,
   Shiv Nadar University, India
   Current: Junior engineer, McKinsey Institute India

7. Areeba Abid (Mentor)   2020 - present
   Program: Medical student at Emory University School of Medicine (SOM)
   Current: Medical student class of 2024

8. Julia Ding (Mentor)   2020 - present
   Program: Medical student at Emory University School of Medicine (SOM)
   Current: MD/PHD student

9. Arrix Ryce (Mentor)   2020 - present
   Program: Medical student at Emory University School of Medicine (SOM)
   Award: 2022 SIR annual scientific meeting medical student travel scholar
   Award: RSNA 2022 Medical student grant
   Current: Medical student class of 2023, current class president

10. Chase Tenewitz (Mentor)   2020
    Program: Medical student at Mercer School of Medicine
    Current: Transition year at Piedmont, Macon GA then Diagnostic radiology residency
    at memorial health, Savannah GA

11. Ananth Reddy Bhimireddy (Mentor)   2020 –2021
    Program: Master's student at Indiana University Purdue University (IUPUI)
    Current: Senior Data Engineer, Delta, Atlanta GA

12. Nazanin Mashhaditafreshi (Mentor)   2020 – 2021
    Healthcare Innovations and Translational Informatics (HITI) lab research intern
    Current: Master's in computer science, TU Kaiserslautern

13. Sara Kabede (Mentor)   2020 – 2021
    Program: Emory **E**ngage, **M**entor, **P**repare, **A**dvocate for, **C**ultivate, and **T**each URiM
    medical students in a supportive and inclusive learning environment (EMPACT)
    Current: Medical student

14. Raman Dutt (Mentor)   2020 – 2021
    Healthcare Innovations and Translational Informatics (HITI) lab research intern
    Current: MSc PhD candidate in Biomedical Artificial Intelligence at the University of
    Edinburgh

15. Thomas Kim (Mentor)   2020 –2021
    Healthcare Innovations and Translational Informatics (HITI) lab research intern
    Current: Senior Data Engineer, Delta, Atlanta, GA

16. Saw Swee Hock School of Public Health, National University of Singapore
    Healthcare AI Datathon and Expo – mentor and judge   2020,2021,2022

17. Akhil Joseph (Mentor)   2021 – 2022
    Program: Master's student at Indiana University Purdue University (IUPUI)
    Current: Data Scientist II at Nationwide Children's Hospital, Columbus Ohio

18. Yuchen Zhang (Project supervisor)   2021
    Program: Emory University School of Public Health
    Current: PHD student in Biostatistics

19. Elijah Chou, (Project supervisor)   2021 – 2022
    Program: Emory University Computer Science & Informatics (CSI)
    Award: Best of the Best Oral Abstract Plenary, Diagnostic Error in Medicine 14th
    Annual International Conference (SIDM2021)

Current: Undergraduate student – Bachelor of Science in Biology and Bachelor of Arts in Computer Science

20. Julia Francois (Mentor)   2021– 2022
Program: Emory SURE (Summer Undergraduate Research Experience) scholar from the Emory Initiative for Maximizing Student Development (IMSD) Program
Current: Undergraduate student – Bachelor of Applied Mathematics and Economics, Emory University

21. Alexander Martinek (Mentor)   2021
ACR 2021 PIERS (Pipeline Initiative for the Enrichment of Radiology) Summer Program (one of three mentors)
Current: Class of 2023 MD Candidate, Morehouse School of Medicine, Atlanta, Georgia.

22. Brandon Price (Mentor)   2021– present
Program: Medical student at Florida State University
Current: PGY 1 Radiology resident, Florida State University, Tallahassee, FL

23. Francisco Matos, MD (Mentor)   2021
Healthcare Innovations and Translational Informatics (HITI) lab research intern
Current: PGY 1 general surgery resident, Harlem Hospital Center

24. Hifza Sakhi (Mentor)   2021– present
Summer Intern, Healthcare Innovations and Translational Informatics (HITI) lab
Current: DO class of 2024, Philadelphia College of Osteopathic Medicine

25. Mentor at the Black in AI summer research program (2 hrs)   2021

26. Mentor at the Women in computer vision workshop held at the Conference on Computer Vision and Pattern Recognition (CVPR) 2021 (2 hrs)   2021

27. Kaesha Thomas MD (Mentor)   2022
Healthcare Innovations and Translational Informatics (HITI) lab research intern
Current: Project Manager Jamaica Cancer Care and Research Institute

28. Mentor at the Critical care data analysis summit and Tarragona datathon   2022

23. Lectureships, Seminar Invitations, and Visiting Professorships:

a. National and International:

1. Stanford Integrative Biomedical Imaging Informatics at Stanford (IBIIS)/Center for Artificial Intelligence in Medicine (AIMI) seminar series, Measuring learning gains in man-machine assemblage when augmenting radiology work with artificial intelligence, Sep 16th, 2020 (Virtual)
2. Brigham and Women's Hospital at Harvard Medical School, Division of Computational Pathology Advanced Biomedical Computation (ABC) Series on Ethics and Fairness in Artificial Intelligence, "Operationalizing fairness in real life clinical settings: a grand challenge", Oct 26th, 2020 (Virtual)
3. Machine Learning and Structural Bias in Health Care, A virtual roundtable for AI Leaders, Center for Connected Medicine at UPMC, Nov 17th, 2020 (Virtual)
4. Stanford's Department of Biomedical Data Science Biostatistics seminar series, "Operationalizing fairness in real life clinical settings: a grand challenge", Jan 28th, 2021 (Virtual)
5. Virtual Roundtable on Artificial Intelligence for Health, Centre for Universal Health at Chatham House, Feb 23rd, 2021 (Virtual)
6. Knowledge, skills and attitudes for safe and effective use of artificial intelligence, Vanderbilt University, Mar 1st, 2021 (Virtual)

7. Reading Race: AI Recognises Patient's Racial Identity In Medical Images, University of British Columbia (UBC) Biomedical Imaging and AI cluster seminar series, Oct 5th, 2021 (Virtual)
8. Visceral and solid organ trauma, Health4TheWorld and Road2IR Interventional Radiology grand rounds series, Oct 7th, 2021 (Virtual)
9. Grand rounds speaker: "Reading race: AI recognizes patient's racial identity in medical images", University of Michigan radiology grand rounds, Ann Arbor, MI, Jan 12th,2022 (Virtual)
10. Grand rounds speaker: Reading race: AI recognizes patients' racial identity in medical images, National Institutes of Health (NIH) radiology grand rounds, Feb 11th, 2022 (Virtual)
11. Grand rounds speaker: "The Double-Edged sword: AI as a threat and solution to healthcare disparities", University of Utah radiology department grand rounds series, Feb 11th, 2022 (Virtual)
12. Challenges and risks encountered when implementing AI, AI in Healthcare Training Program Executive Masterclass, Brisbane, Australia, Jul 22nd, 2022 (Virtual)
13. Ethics and Bias in healthcare AI, MIT Health Sciences and Technology (HST) program Ethics in Healthcare and Biomedical research graduate seminar series, Boston, MA, Oct 20th, 2022
14. Grand rounds speaker: "Harnessing Data Science for Health Discovery and Innovation in Africa", Massachusetts General Hospital & Brigham and Women's Hospital (MGH & BWH) Center for Clinical Data Science (CCDS) grand rounds lecture series, Boston, MA, Nov 10th, 2022

b. Regional:

1. Opportunities for pursuing radiology residency. Radiology Interest group at Philadelphia College of Osteopathic Medicine (PCOM), Suwanee, GA, Oct 18th, 2021

c. Institutional:

1. Pelvic ring injury case discussion
   Trauma multidisciplinary grand rounds, Grady Health System, Mar 18th, 2021
2. Pancreatico-pancreatic fistula
   Emory internal medicine case presentation series grand rounds, Apr 30th, 2021
3. Interventional radiology case conference – pain and palliative interventions
   Grady Health System grand rounds for the hospitalist team, Jun 3rd, 2021
4. AI and Bias
   Emory University Enterprise-Wide Research Leadership Retreat, Adairsville GA, Oct 7th, 2021
5. Post-Partum hemorrhage – Sound the alarm – Another mother is dying!
   Emory School of Medicine OB/GYN grand rounds, Mar 30th, 2022
6. AI: Our today and tomorrow, Discovering Emory 2022, Emory University, Aug 9th, 2022

24. Invitations to National/International, Regional, and Institutional Conferences:

a. National and International:

1. Keynote speaker: "Hype vs Reality: The Role of Artificial Intelligence in Global Health", Harvard Global Health Summit, Boston MA, February 18th, 2019
2. Why diversity?... Real Talk from Our Patients and Our Future: Perspective of an IR Fellow, what is perceived and what is needed, Society of Interventional Radiology (SIR) Annual Meeting, Austin TX, March 23rd-28th, 2019
3. Luminary speaker: Deep Learning Advancements for Natural Language Processing, Society of Imaging Informatics in Medicine (SIIM) Annual Meeting, Austin TX, June 26th-28th, 2019
4. Introduction to Artificial Intelligence in Imaging Informatics: History, Reality and Hype, Society of Imaging Informatics in Medicine (SIIM) Annual Meeting, Austin TX, June 26th-28th, 2019
5. Ethics of AI in Radiology: The European and North American Multisociety Statement, Society of Imaging Informatics in Medicine (SIIM) Annual Meeting, Austin TX, June 26th-28th, 2019
6. Optimizing the IT Supply Chain to Deploy AI in the Clinical Workflow, ACR Informatics Summit, Washington DC, Oct 5th-6th, 2019
7. Machine learning for the Interventional Radiologist, American Journal of Roentology webinar series, Oct 16th, 2019 (Webinar)
8. Getting a seat at the AI Table: Challenges and Opportunities for Radiologists and Radiology Societies to Engage Government and Hospital Agencies, RSNA Annual Meeting, Chicago IL, Dec 1st - 6th, 2019
9. Ethics of AI in Radiology: Summary of the European and North American Multisociety Statement, RSNA Annual Meeting, Chicago IL, Dec 1st - 6th, 2019
10. What you need to know about AI, Innovator MD Global Summit, San Francisco, CA, Jan 11th, 2020
11. Role of AI Role of AI in the Developing World during the Covid-19 Era, Society of Imaging Informatics in Medicine (SIIM) AI Webinar series, May 20th, 2020 (Webinar)
12. AI Happy Hour Episode 1: AI in medicine, Stanford Artificial Intelligence in Medical Imaging (AIMI) webinar series, virtual, May 29th, 2020 (Webinar)
13. Actionable Change for Racial Bias in Tech, Stanford Artificial Intelligence in Medical Imaging (AIMI) webinar series, June 11th, 2020 (Webinar)
14. Can image-based AI meaningfully impact COVID-19 response in low resource settings? International Telecommunication Union (ITU) AI for Good Global Summit series, June 16th, 2020 (Webinar)
15. AI research in Interventional Radiology, Society of Interventional Radiology (SIR) Grants for Education of Medical Students (GEMS) program, June 21st, 2020 (Virtual)
16. Pre-Market Assessment and Validation of AI Algorithms, SIIM-ACR data science summit, June 23rd, 2020 (Virtual)
17. How AI is changing radiology, PIE & AI, June 25th, 2020 (Webinar)
18. AI Happy Hour Episode 2: AI and COVID, Stanford Artificial Intelligence in Medical Imaging (AIMI) webinar series, Jul 3rd, 2020 (Webinar)
19. AI Happy Hour Episode 3: AI in Medical Imaging, Stanford Artificial Intelligence in Medical Imaging (AIMI) webinar series, Jul 31st, 2020 (Webinar)
20. The Importance of Equitable Datasets Across Domains, Lacuna Fund webinar, July 31st, 2020 (Webinar)
21. Data autopsy for FAIR Medical AI, Stanford AIMI symposium, Aug 5th, 2020 (Virtual)
22. AI Happy Hour Episode 5: Who Pays for AI? Stanford Artificial Intelligence in Medical Imaging (AIMI) webinar series, Sep 25th, 2020 (Webinar)
23. Radiology then - How has radiology embraced technology in the past and managed the disruption brought on by change? American College of Radiology (ACR) AI Medical Student Symposium (AIMS), Oct 24th, 2020 (Virtual)

24. Artificial Intelligence and Radiology During COVID-19: Lessons Learned and Looking Ahead (Webinar), Radiology Society of North America (RSNA) COVID AI webinar series, Oct 29th, 2020 (Webinar)
25. Introduction to Imaging Informatics, European Society of Medical Imaging Informatics (EUSOMII) annual meeting, Oct 24th- Nov 1st, 2020 (Virtual)
26. Applications of pixel-based AI, American College of Radiology (ACR) Informatics Summit, Oct 27-28th, 2020 (Virtual)
27. Image Exchange, Viewing, and Archiving in the Cloud, SIIM #AskIndustry Webinar Series, 10th Dec 2020 (Webinar)
28. Getting Started with Building AI - A Radiologist's Perspective, British Institute of Radiology (BIR) and Indian Radiology & Imaging Association (IRIA) joint AI meeting, Nov 21st – 22nd, 2020 (Virtual)
29. Artificial Intelligence for Abdominal Imagers, Radiology Society of North America (RSNA) annual meeting, Nov 29th - Dec 5th, 2020 (Virtual)
30. Hot Topic Session: Artificial Intelligence and Implications for Health Equity: Will AI Improve Equity or Increase Disparities? Radiology Society of North America (RSNA) annual meeting, Nov 29th - Dec 5th, 2020 (Virtual)
31. Ethics of AI in Radiology: Summary of the European and North American Multisociety Statement. Radiology Society of North America (RSNA) annual meeting, Nov 29th - Dec 5th, 2020 (Virtual)
32. Machine Learning and Artificial Intelligence: Opportunities for Interventional Radiology, International Society for Medical Innovation and Technology (iSMIT), Dec 3rd – 10th, 2020 (Virtual)
33. Operationalizing fairness in medical algorithms: A data centric approach, Saw Swee Hock School of Public Health, National University of Singapore Healthcare AI Datathon and Expo, 11th Dec 2020 (Virtual)
34. Keynote: Operationalizing fairness in medical algorithms: A grand challenge, Machine Learning for Health (ML4H) 2020 workshop at the Conference and Workshop on Neural Information Processing Systems (NeurIPS) annual conference, Dec 11th, 2020 (Virtual)
35. AI Happy Hour Ep. 8 - Pathways to Careers in AI, Stanford Artificial Intelligence in Medical Imaging (AIMI) webinar series, Dec 18th, 2020 (Webinar)
36. AI Happy Hour Ep. 9 - Investment Considerations for Clinical AI, Stanford Artificial Intelligence in Medical Imaging (AIMI) webinar series, Jan 29th, 2021 (Webinar)
37. AI Happy Hour Ep. 10 - Legal Considerations for AI in Medicine, Stanford Artificial Intelligence in Medical Imaging (AIMI) webinar series, virtual, Feb 26th, 2021 (Webinar)
38. FDA-Cleared AI Algorithms for Medical Imaging: Explore the Latest AI Tools, American College of Radiology (ACR) FDA webinar, virtual, Mar 3rd, 2021 (Webinar)
39. Creating exceptional women leaders: the missing links of mentorship and networking, Harvard Global Health Institute webinar series, Mar 9th, 2021 (Webinar)
40. AI Happy Hour Ep 11 – Pharma AI, Stanford Artificial Intelligence in Medical Imaging (AIMI) webinar series, Mar 26th, 2021 (Webinar)
41. Deep Learning/AR for Women's Intervention, Society of Interventional Radiology (SIR) annual meeting, Mar 20-26th, 2021 (Virtual)
42. Case study: AI Solutions for Addressing Inequity in Breast Cancer Care, AI for Healthcare Equity Conference (MIT/Jameel Clinic), Apr 12th, 2021 (Virtual)
43. Role of data in disaster preparedness and response, webinar organized by the Bhutan Institute of Happiness, MIT Critical Data, Asian eHealth Information Network (AeHIN) and the Global Alliance for Medical Innovation (GAMI), Apr 28th, 2021 (Webinar)
44. AI Happy Hour Ep 13: Happy hour turns 1! Highlights from our first year, Stanford Artificial Intelligence in Medical Imaging (AIMI) webinar series, May 20th, 2021 (Webinar)

45. Bold Predictions: How AI will disrupt the status quo in ways you haven't thought of. Society of Imaging Informatics in Medicine (SIIM) annual meeting, May 24th, 2021 (Virtual)
46. Imaging informatics in underserved communities through the COVID-19 pandemic. Society of Imaging Informatics in Medicine (SIIM) annual meeting, May 24th, 2021 (Virtual)
47. Operationalizing fairness for medical algorithms: threats and opportunities. Society of Imaging Informatics in Medicine (SIIM) annual meeting, May 24th, 2021 (Virtual)
48. Failures Hiding in Success for Artificial Intelligence in Radiology, Colombian Association of Radiology and the ACR Annual Artificial Intelligence, radiology, and Healthcare Congress 2021, May 28th, 2021 (Virtual)
49. HANA – Healthcare – Advanced Neural Algorithms, Machine learning and data science (MLADS) Spring 2021 conference by Microsoft, June 7th, 2021 (Virtual)
50. Status of AI in diagnostic imaging: Types of AI models and products available. American College of Radiology (ACR) data science summit, June 16th, 2021 (Virtual)
51. Advise to junior researchers on participating in computer vision, Women in computer vision workshop at the Conference on Computer Vision and Pattern Recognition (CVPR) annual meeting, June 19th, 2021 (Virtual)
52. Fireside chat: Reading race, AI recognizes patient's racial identity in medical images. Black AI summer program speaker series, July 29th, 2021 (Virtual)
53. Practice building in limited resource settings, Second Annual Kenya Association of Radiologists/Rad-Aid IR symposium, Jul 30th, 2021 (Virtual)
54. Fairness, generalizability and societal impact: Reading race, AI recognizes patient's racial identity in medical images, Stanford Artificial Intelligence in Medical Imaging (AIMI) 2nd annual symposium, Aug 3rd, 2021 (Virtual)
55. Responsible use of AI – promoting health equity and analysis across populations, BioPharm America, Sep 23rd, 2021 (Virtual)
56. Strategies for integrating telemedicine into a radiology program, Xtelligent Healthcare media webinar series, Sep 29th, 2021 (Webinar)
57. How to select an AI vendor – build versus buy? American College of Radiology (ACR) Informatics Summit, Oct 16th, 2021 (Virtual)
58. There is ~~no~~ bias in Imaging, American Society of Neuroradiology (ASNR) journal club, Oct 20th, 2021 (Virtual)
59. Interventional Radiology - from technician to clinician. 1st SAintS|SAFIRE (Joint South African Interventional Society | Society of African Interventional Radiology and Endovascular Therapy) congress, Oct 22nd – 24th 2021 (Virtual)
60. Amazing cases session. 1st SAintS|SAFIRE (Joint South African Interventional Society | Society of African Interventional Radiology and Endovascular Therapy) congress, Oct 22nd – 24th, 2021 (Virtual)
61. Reading Race: AI Recognises patient's racial identity in medical images. The Hospital for Sick Children (SickKids) at the University of Toronto annual bioethics week (AI in medicine), Nov 10th, 2021 (Virtual)
62. Artificial intelligence (AI) economics – now that I have AI, should I keep it? Applied radiology AI webinar series, Nov 16th, 2021 (Virtual)
63. AI recognizes patient's racial identity in medical images, Advanced Radiology Services/ Michigan State University AI Healthcare Journal Club, Nov 17th, 2021 (Virtual)
64. AI and ML in oncologic imaging: identifying and mitigating health disparities and access challenges for cancer screening with AI, Radiology Society of North America (RSNA) annual conference, Nov 29th, 2021, Chicago, IL.
65. Medical Imaging and Data Resource Center: A Multi-Society Approach to Advance

Research on COVID-19 and Other Diseases, Radiology Society of North America (RSNA) annual conference, Dec 1st, 2021, Chicago, IL.

66. Fairness and ethical AI in healthcare. Machine learning for health (ML4H) annual conference virtual research roundtables, Dec 4th, 2021 (Virtual)

67. Ethics and fairness of health AI algorithms. Stanford AI and Health Online conference, Dec 8th – 9th 2021 (Virtual)

68. What are "meaningful" ML datasets and the opportunities and challenges in creating them? Nightingale Open Science NeurIPS (Conference and Workshop on Neural Information Processing Systems) workshop, Dec 14th, 2021 (Virtual)

69. Artificial Intelligence in radiology. 2022 American College of Radiology medical student symposium, Jan 22nd, 2022 (Virtual)

70. Reading race: AI recognizes patients' racial identity in medical images, Medical Imaging and data Resource Center (MIDRC) monthly webinar series, Jan 18th, 2022 (Webinar)

71. Build Vs. Buy: The Conundrum of Radiology AI, American College of Radiology (ACR) webinar series, Jan 25th, 2022 (Webinar)

72. Bias in medical AI imaging: A data centric approach, 2022 spring symposium on data science in health disparities, University of Michigan, Ann Arbor, MI, Mar 11th, 2022

73. Fairness and bias in medical imaging AI, Philadelphia Angiography & Interventional Radiology Symposium (PAIRS) monthly angio club lecture series, March 15th, 2022 (Virtual)

74. "A matter of trust: AI and the clinical experience", Health Data Management and KLAS research virtual learning series, April 6th, 2022 (Virtual)

75. Artificial Intelligence in radiology, American University of Antigua College of Medicine (AUCOM) radiology interest group symposium, Apr 16th, 2022 (Virtual)

76. Communication and Engagement within hybrid working environment, Marie Curie Alumni Association general assembly, Lisbon, Portugal, Mar 26th, 2022 (Hybrid)

77. Bias and ethical issues in artificial intelligence (Session on Artificial Intelligence in Oncology: The current field and where it is headed), American Society of Clinical Oncology (ASCO) annual meeting, Chicago, IL, Jun 6th, 2022

78. Opportunities & Challenges in real world data science – race and Imaging AI, NIH CTSA making real-world data and real-world evidence a reality for translational science workshop and unmeeting, Jun 8th, 2022 (Virtual)

79. Implications of bias in artificial intelligence. Society of Imaging informatics in Medicine (SIIM) annual meeting, Kissimmee, FL, June 10th, 2022

80. AI for cancer disparities - opportunities and threats, 2022 Stanford Radiology Diversity Conference, Jun 20th, 2022 (Virtual)

81. Keynote: "Healthcare AI and COVID-19", ICML 2022 workshop on healthcare AI and COVID-19, Baltimore, Maryland, Jul 22nd, 2022

82. Keynote: "The Double-edged sword: AI opportunities and threats". National Medical Association (NMA) 2022 annual meeting – radiology and radiation oncology section, Atlanta, GA, Aug 2nd, 2022

83. Creating AI That Improves Health, STAT News AI series, Aug 3rd, 2022 (Virtual)

84. Equity and Fairness in Artificial Intelligence Applied to Cardiac Imaging. American Society of Nuclear Cardiology annual meeting, Orlando, FL, Sep 9th, 2022

85. Hidden in plain sight: An update of the Reading Race project, Conference on machine intelligence in medical imaging (CMIMI), Oct 3rd, 2022 (Virtual)

86. Using AI to enable purchase decisions and current market offerings. American College of Radiology Quality & Safety conference, Washington DC, Oct 21, 2022

87. Health equity in AI and ML. American College of Radiology Informatics Summit, Washington DC, Oct 23rd, 2022

88. Intersection of human health and artificial intelligence, Google Health AI Ecosystems Talk Series, San Francisco, CA , Nov 17th, 2022
89. Failures, Biases, and more: When Good AI Goes Bad. RSNA Annual conference, Chicago, IL, Nov 30th, 2022
90. Health disparities in prostate cancer imaging (Prostate MRI and Molecular Imaging: Core and Advanced Applications). RSNA Annual conference, Chicago, IL, Nov 28th, 2022
91. Pareto Principle and IT Projects: What Improves Throughput? RSNA Annual conference, Chicago, IL, Nov 28th, 2022

25. Abstract presentations at National/International, Regional, and Institutional Conferences:

a. National and International:

1. Bercu Z*, Whitmore M, Kokabi N, Majdalany B, Krishnasamy K, Resnick N, Prologo JD, Ermentrout RM, West D, **Gichoya J,** Newsome J. Beyond biomedical engineering: what role may industrial, and systems engineering (ISyE) play in solving complex workflow challenges in the angiosuite? Innovations in Cardiovascular Interventions (ICI), Dec 8th – 10th, 2019, Tel Aviv, Israel (oral)
2. Wagstaff W*, Villalobos A, **Gichoya J**, Kokabi, N. "Deep Learning Dosimetry: Automated Treatment Dose Calculations for Yttrium-90 Radioembolization of Hepatocellular Carcinoma.", Society of Interventional Oncology (SIO) AI Hackathon, New Orleans, LA. Feb 01st, 2020 (oral)
3. Trivedi H*, Bartlett J, Khalid S, Banerjee I, Horny M, Duszak R, **Gichoya J.** "Using Machine Learning to Predict ED and Inpatient Visits using Longitudinal Claims Data", Society of Imaging Informatics (SIIM) Annual Meeting, Jun 24th – 26th, 2020 (oral) (Virtual)
4. Trivedi H*, Kamath H, Smith G, Mosunjac M, Oprea G, Banerjee I, **Gichoya J.** "Development of an Open Source, Browser-based Report Annotation Tool to accelerate Deep Learning Projects", Society of Imaging Informatics (SIIM) Annual Meeting, Jun 24th – 26th, 2020 (oral) (Virtual)
5. Guo X*, **Gichoya J**, Trivedi H, Banerjee I, "Deeper Thinner UNet (DT- UNet) for Fine Vessel Segmentation of Breast Arterial Calcifications (BAC)", Conference in Machine Intelligence in Medical Imaging (CMIMI), Sep 13 -14th, 2020 (oral) (Virtual)
6. Kathiravelu P*, Sharma P, Sharma A, Banerjee I, Trivedi H, Purkayastha S, Sinha P, Cadrin-Chenevert A, Safdar N, **Gichoya JW**, "A DICOM Framework for Machine Learning Pipelines against Real-Time Radiology Images", Conference in Machine Intelligence in Medical Imaging (CMIMI), Sep 13 -14th, 2020 (oral) (Virtual)
7. McCoy L*, Burkell J, Card D, Davis B, **Gichoya J**, Page S, Madras D. 'Beyond "In The Loop": On The Role of Meaningful Human Control in High-Stakes Machine-Human Partnerships', We Robot 2020, Sep 22-25, 2020 (oral) (Virtual)
8. C. Tenewitz, **J. Gichoya**, J. Newsome. "Intracardiac echocardiographic guidance for IR procedures", Cardiovascular and Interventional Radiological Society of Europe (CIRSE), Sep 25-29, 2020 (poster) (Virtual)
9. C. Tenewitz, A. DuCoffe, J. Newsome, **J. Gichoya**. "A tale of two GDAs (gastroduodenal arteries) supplying a pseudoaneurysm". Cardiovascular and Interventional Radiological Society of Europe (CIRSE), Sep 25-29th, 2020 (poster) (Virtual)
10. Kinney P*, Tariq A, Trivedi HM, **Gichoya J,** Banerjee I. "Using Natural Language Processing to Predict ICU Transfer in Hospitalized COVID-19 Patients", American

Medical Informatics Association (AMIA) Annual Meeting, November 14th- 18th, 2020 (oral) (Virtual)

11. Kallas O, Balthazar P, Lee S, Rubin D, Desser T, **Gichoya J** "Categorization of Hepatocellular Carcinoma (HCC) Risk from Abdominal MRI Reports Using Transfer Learning with Similar Domain Adaptation Deep Learning Technique", Radiology Society of North America (RSNA) annual meeting, Nov 29th - Dec 5th, 2020 (poster) (Virtual)

12. Pan I, Phen M, Mendonca D, Khan J, Modi M, Bajpeyi M, Shogbesan G, Kathiravelu P, Banerjee I, **Gichoya J**, Yoon T, Trivedi H. "Deep learning for automatic segmentation and classification of cervical spine hardware and brand", Radiology Society of North America (RSNA) annual meeting, Nov 29th - Dec 5th, 2020 (poster) (Virtual)

13. Tuchayi M*, Zhang Y, Fan S, Lee S, Majdalany BS, Bercu Z, Duszak R, Hanna Tarek, Johnson JO, Newsome J, **Gichoya J**, Kokabi N. "Contemporary Trends in the Management and Outcome of Patients with Traumatic Pelvic Fractures: A National Trauma Data Bank Study", Society of Interventional Radiology (SIR) Annual Scientific Meeting, Mar 20-26th 2021 (oral) (Virtual)

14. Lee S*, Fan S, Duszak R, **Gichoya J**, Majdalany BS, Newsome J, Kokabi N. "Utilization and Efficacy of Prophylactic IVC Filter Placement in Severely Injured Trauma Patients at High Thromboembolic Event Risk: A National Trauma Data Bank Study", Society of Interventional Radiology (SIR) Annual Scientific Meeting, Mar 20-26th 2021 (oral) (Virtual)

15. Arndt L*, Newsome J, Guo M, Lee S, Garcia-Reyes K, Duszak R, **Gichoya J**, Kokabi N. Utilization and comparative effectiveness of hysterectomy versus uterine artery embolization for clinically significant postpartum hemorrhage: a national inpatient sample study. **Awarded the SIR 2021 Dr Constantin Cope medical student research award**. Society of Interventional Radiology (SIR) Annual Scientific Meeting, Mar 20-26th 2021. (oral) (Virtual)

16. Tariq A, Celi L, Newsome J, Purkayastha S, Bhatia N, Merchant F, Trivedi H, **Gichoya JW**, Banerjee I. "Patient-specific COVID-19 Resource Utilization Prediction Using Fusion AI model", American College of Cardiology (ACC) 70th Annual Scientific Session, Atlanta, May 15-17, 2021 (flatboard poster) (Virtual)

17. Zaiman Z*, Okechukwu C, Banerjee I, **Gichoya J**. Binary classification of COVID-19 based on frontal radiographs, Society of Imaging Informatics (SIIM) Annual Meeting, May 24th, 2021 (oral) (Virtual)

18. Wagstaff W*, Villalobos A, Kokabi N, **Gichoya J.** Predicting treatment response in patients with hepatocellular carcinoma treated with Y90 radioembolization using deep learning, Society of Imaging Informatics (SIIM) Annual Meeting, May 24th, 2021. **Awarded the Helen and Paul Chang Foundation New Investigator Travel Award** (oral) (Virtual)

19. **Gichoya JW***. 2020 year in review: AI versus COVID? Applied Machine Learning Days (AMLD) annual conference, June 28th, 2021 (oral) (Virtual)

20. Kodela S, Pinnamraju J, **Gichoya J**, Purkayastha S. Opioid prescriptions prediction from patient demographics in MIMIC-IV, Sep 16th, 2021 (poster) (Virtual)

21. Chou E *, Josef C, Banerjee I, **Gichoya JW**. Performance of ICU severity scoring systems across different ethnicities in open-source and private ICU datasets, Diagnostic Error in Medicine 14th Annual International Conference (SIDM2021), Oct 27th, 2021. **Awarded Best of the Best Oral Abstract Plenary** (oral) (Virtual)

22. Santos T*, Kallas O, Newsome J, **Gichoya JW**, Banerjee I. A Fusion NLP Model for the Inference of Standardized Thyroid Nodule Malignancy Scores from Radiology

Report Text, American medical informatics association (AMIA) 2021 Annual Symposium, San Diego CA, Nov 1st, 2021 (oral)

23. Zaiman Z, Sinha P, Okechukwu C, Pyrros A, Trivedi H, Banerjee I, **Gichoya JW**. Clinical performance of COVID-19 CXR prediction models across multiple institutions, RSNA annual meeting, Chicago, IL, Nov 29th, 2021 (poster)

24. Mazaheri S, Khan F, Gerard R, Vey B, Zavaletta V, **Gichoya JW**, Davis M, Banerjee I, Newsome J, Heilburn M. Employing a natural language processing (NLP) model to predict and compare case acuity based on radiological reports in a 5-hospital academic health system. RSNA annual meeting, Chicago, IL, Nov 29th, 2021 (poster)

25. Pyrros A, **Gichoya JW.** Detection of racial/ethnic health disparities in COVID-19 patients using a deep learning chest radiography classifier, RSNA annual meeting, Chicago, IL, Nov 29th, 2021 (poster)

26. Tariq A, Banerjee I, **Gichoya JW**. COVID-19 resource utilization prediction using fusion AI model, RSNA annual meeting (Awarded the **Aunt Minnie Roadie award** for the most viewed abstract in the Imaging Informatics section at the 2021 RSNA annual meeting), Chicago, IL, Nov 29th, 2021 (poster)

27. Wang R, Chen L, Lin P, **Gichoya J,** Celi L, Kuo P. Eliminating race related shortcuts in deep neural networks for chest-Xray analysis, AAAI 2022 Workshop of "Trustworthy AI for Healthcare", Mar 1st, 2022 (poster) (Virtual)

28. Merine R*, **Gichoya J**, Purkayastha S. LibreHealth cost of care explorer: Mobile application for patient friendly access to hospital chargemasters, IEEE EMBS Special Topics Conference on Healthcare Innovations and Point of Care Technologies (HI-POCT), Houston TX, Mar 10th, 2022 (oral)

29. Sinha P*, **Gichoya JW**, Purkayastha S. Leapfrogging Medical AI in Low-Resource Contexts Using Edge Tensor Processing Unit, IEEE EMBS Special Topics Conference on Healthcare Innovations and Point of Care Technologies (HI-POCT), Houston TX, Mar 10th, 2022 (oral)

30. Guo X*, Duan J, Purkayastha S, Trivedi H, **Gichoya J**, Banerjee I. OSCARS: An Outlier-Sensitive Content Based Radiography Retrieval System, 2022 ACM International Conference on Multimedia Retrieval (ICMR'22), Newark, NJ, Jun 27-30th, 2022 (oral)

31. Sinha P*, Tummala S, Purkayastha S, **Gichoya J**. Energy efficiency of quantized neural networks in medical imaging, Medical Imaging with Deep Learning (MIDL) 2022 annual conference, Zurich, Switzerland, Jul 6th, 2022 (oral)

32. Driessen R*, Bhatia N, **Gichoya J**, Safdar N, Balthazar P. Sociodemographic data reporting in human subject Artificial Intelligence (AI) radiology research across top cited US radiology journals, Society of Imaging Informatics in Medicine (SIIM) annual meeting, Kissimmee, FL, June 9-11th, 2022 (oral)

33. Correa R*, Jeong J, Patel B, Trivedi H, **Gichoya J**, Banerjee I. Two step adversarial debiasing with partial learning – medical image case studies, Society of Imaging Informatics in Medicine (SIIM) annual meeting, Kissimmee, FL, June 9-11th, 2022 (oral)

34. Guo X*, **Gichoya J,** Trivedi H, Purkayastha S, Banerjee I. Shift data identification for external medical datasets, Society of Imaging Informatics in Medicine (SIIM) annual meeting, Kissimmee, FL, June 9-11th, 2022 (oral)

35. Burns J, Zaiman Z, Luo G, Peng L, Price B, Mathias G, Mittal V, Sanage A, Vanschaik J, Tignanelli C, Chakraborty S, **Gichoya J**, Purkayastha S. Pixel intensity averages by race in chest x-ray, Society of Imaging Informatics in Medicine (SIIM) annual meeting, Kissimmee, FL, June 9-11th, 2022 (poster)

36. Merine R*, Purkayastha S, **Gichoya J**. Comparative analysis of published chargemasters for interventional radiology procedures across the United States,

2022 Society of Interventional Radiology (SIR) annual meeting, Boston, MA, Jun 11-16th, 2022 (oral)

37. ElHabr A*, Ayer T, Newsome J, Kokabi N, Smith R, **Gichoya J**. Racial disparities in utilization of interventional radiology, operative, and non-operative hemorrhage management for patients with traumatic injuries: a National Trauma Data Bank study, 2022 Society of Interventional Radiology (SIR) annual meeting, Boston, MA, Jun 11-16th, 2022 (oral)

38. Zhuang T, Mather R, Smitha J, **Gichoya J**, Utz A, Mikhail A. Characterizing re-admission, bleeding, and thrombotic events in COVID-19 patients receiving anticoagulation therapy: a single-institution retrospective analysis, Thrombosis & Hemostasis Summit of North America (THSNA 2022), Chicago, IL, Aug 16th – 18th, 2022 (poster)

39. Guo* X, Duan J, Kup C, **Gichoya J**, Banerjee I. Augmenting vision language pretraining by learning codebook with visual semantics, 26th International conference on pattern recognition (ICPR 2022), Montreal, Quebec, Aug 21st-25th, 2022 (oral)

40. Guo X, **Gichoya J**, Trivedi H, Purkayastha S, Banerjee I. CVAD: A generic medical anomaly detector based on cascade VAE, Medical image learning with limited and noisy data (MILLanD) 2022 workshop at MICCAI, Singapore, Sep 16th- 23rd, 2022 (poster)

41. Meyer C, Ward C, Sanders M, Thompson A, Muralidharan V, ElHabr A, **Gichoya J**, Coopersmith C, Dente C, Lyons J, Smith R. Outcomes and survivability in adult trauma patients undergoing ultra-massive transfusion, 81st Annual meeting of AAST and Clinical Congress of Acute Care Surgery, Chicago, IL, Sep 21st – 24th, 2022 (poster)

42. Tariq A*,Tang S, Sakhi H, Celi A, Newsome J, Rubin D, Trivedi H, **Gichoya J**, Patel B, Banerjee I. Graph based fusion modeling and explanation for disease trajectory prediction, AMIA 2022 annual symposium, Washington DC, Nov 5th-9th, 2022 (oral)

b. Institutional:

1. Chou E, Banerjee I, **Gichoya JW.** Performance of intensive care unit severity scoring systems across different ethnicities in MIMIC-IV. Emory school of medicine department of medicine | RYSE health equity day, May 11th, 2021 (poster) (Virtual)

2. Francois J, Correa R, Pyrros A, **Gichoya JW.** Deep learning model for predicting mortality and medical conditions from chest radiographs. Emory University summer undergraduate research symposium, Aug 5th, 2021 (poster) (Virtual)

26. Research Focus:

My interests are in translational informatics and innovation. I study how technology is used during health care provision, focusing on how machine learning algorithms fail when deployed in real life settings; explainability and robustness of Artificial Intelligence (AI); and explore fairness and accountability of AI systems.

27. Grant Support:

a. Active Support:

a. Federally Funded:

1. Principal Investigator (PI), NIH, AWD101462-H: Medical Imaging and Data Resource Center (MIDRC) for Rapid Response to COVID-19 Pandemic, grant, $324,795, 08/21/2020 – 11/20/2022. (Emory is sub to University of Chicago).
2. Principal Investigator (PI), NIH, 5 U.S.C. 3371-3376: Data and Technology Advancement (DATA) National Service Scholar, IPA grant, $533,669, 01/25/2021 – 01/25/2023.
3. Principal Investigator (PI), NIH AIM-AHEAD Pilot grant, Radiology AI/ML to address disparities in cardiometabolic diseases and cancer research through the AIM-AHEAD consortium, grant, $500,000, 09/01/2022 – 08/31/2023.
4. Co-Principal Investigator (Co-PI), NIH, RSNA AI data repository and medical imaging data resource center (MIDRC), grant, $38,000, 09/01/2022 - 08/31/2023.

b. Private Foundation Funded:

1. Principal Investigator (PI), Robert Wood Johnson Foundation – Harold Amos Minority Faculty Award, curating diverse datasets for medical imaging to improve artificial intelligence fairness, grant, $420,000, 07/01/2023 – 06/30/2027.

c. Contracts:

1. Co-Principal Investigator (Co-PI), Clairity, Evaluation of Breast Cancer Risk prediction model, grant, $150,000, 04/18/2022 – 12/31/2024.

b. Previous Support:

1. Principal Investigator (PI), NSF, FW-HTF-RM: Measuring learning gains in man-machine assemblage when augmenting radiology work with artificial intelligence, grant, $826,795, 09/01/2019 - 08/21/2022. (Emory is sub to Indiana University Purdue University).
2. Principal Investigator (PI), Georgia CTSA, UL1TR002378: Real Time Inference Pipeline (RTIP) for Artificial Intelligence (AI) clinical validation, grant, $15,000, 07/01/2020 – 06/03/2021.
3. Principal Investigator (PI), Emory School of Medicine Radiology Department Seed Grant: Real Time Inference Pipeline (RTIP) for Artificial Intelligence (AI) clinical validation, grant, $10,000, 09/01/2020 – 08/31/2022.
4. Co-Investigator (Co-I), Kheiron Medical Technologies: Testing of Deep Learning Models for Mammography, grant, $396,098, 11/05/2020- 11/04/2021.
5. Principal Investigator (PI), Biodata Consortium: Data Request and Anonymizer Testing, grant, $7,800, 11/13/2020 – 06/30/2021
6. Principal Investigator (PI), Emory University and Nightingale Open Science Collaboration: Osteoarthritis, Pain and Disparities, $259,743, 04/01/21-03/30/22 (Emory is sub to University of Chicago).

28. Bibliography:

a. Published and Accepted Research Articles

1. Kasthurirathne SN, Dixon BE, **Gichoya J**, et al. Toward better public health reporting using existing off the shelf approaches: A comparison of alternative cancer detection approaches using plaintext medical data and non-dictionary based feature selection. *Journal of Biomedical Informatics.* 2016; 60:145-152.

2. Jung H-Y, **Gichoya JW**, Vest JR. Providers' access of imaging versus only reports: A system log file analysis. *J Am Coll Radiol*. 2017;14(2):217-223.
3. Kasthurirathne SN, Dixon BE, **Gichoya J**, et al. Toward better public health reporting using existing off the shelf approaches: The value of medical dictionaries in automated cancer detection using plaintext medical data. *Journal of Biomedical Informatics.* 2017; 69:160-176.
4. **Gichoya JW**, Kohli MD, Haste P, Abigail EM, Johnson MS. Proving Value in Radiology: Experience Developing and Implementing a Shareable Open-Source Registry Platform Driven by Radiology Workflow. *J Digit Imaging. 2017* Oct;30(5):602-608
5. Kohli M, Morrison JJ, **Wawira J**, et al. Creation and Curation of the Society of Imaging Informatics in Medicine Hackathon Dataset. *J Digit Imaging (2018)* 31: 9.
6. **Gichoya JW**, Kohli M, Ivange L, Schmidt TS, Purkayastha S. A Platform for Innovation and Standards Evaluation: A Case Study from the OpenMRS Open-Source Radiology Information System. *J Digit Imaging*. 2018;31(3):361-370.
7. Sims, J., **Gichoya, J.,** Bhardwaj, G. and Bogers, M. (2019), Write Code, Save Lives: How a Community Uses Open Innovation to Address a Societal Challenge. R&D Management, 49: 369-382.
8. Purkayastha S, Allam R, Maity P, **Gichoya JW**. Comparison of Open-Source Electronic Health Record Systems Based on Functional and User Performance Criteria. *Healthc Inform Res*. 2019;25(2):89-98.
9. Purkayastha S, Asha K, Maity P, Rajapuri A, **Gichoya JW**. Critical Components of Formative Assessment in Process-Oriented Guided Inquiry Learning for Online Labs. *Electronic Journal of e-Learning*. 2019;17(2):77-92.
10. Balthazar P, Tajmir SH, Ortiz DA, **Gichoya JW** et al. The Artificial Intelligence Journal Club (#RADAIJC): A Multi-Institutional Resident-Driven Web-Based Educational Initiative. *Acad Radiol*. 2020;27(1):136-139.
11. Nadarajah C, Fananapazir G, Cui E, **Gichoya J**, Thayalan N, Asare-Sawiri M, Menias CO, Sandrasegaran K. Association of pancreatic fat content with type II diabetes mellitus. *Clinical radiology*. 2020 Jan 1;75(1):51-6.
12. Burns JL, Hasting D, **Gichoya JW**, McKibben B, Shea L, Frank M. Just in time radiology decision support using real-time data feeds. *Journal of digital imaging*. 2020 Feb;33(1):137-42.
13. Tariq A, Purkayastha S, Padmanaban GP, Krupinski E, Trivedi H, Banerjee I, **Gichoya JW**. Current clinical applications of artificial intelligence in radiology and their best supporting evidence. *Journal of the American College of Radiology*. 2020 Nov 1;17(11):1371-81.
14. Tadavarthi Y, Vey B, Krupinski E, Prater A, **Gichoya J**, Safdar N, Trivedi H. The State of Radiology AI: Considerations for Purchase Decisions and Current Market Offerings. *Radiology: Artificial Intelligence*. 2020 Nov 11;2(6): e200004.
15. Guo X, O'Neill WC, Vey B, Yang TC, Kim TJ, Ghassemi M, Pan I, **Gichoya JW**, Trivedi H, Banerjee I. SCU-Net: A deep learning method for segmentation and quantification of breast arterial calcifications on mammograms. Medical physics. 2021 Oct;48(10):5851-61.
16. Sarkar R, Martin C, Mattie H, **Gichoya JW**, Stone DJ, Celi LA. Performance of intensive care unit severity scoring systems across different ethnicities in the USA: a retrospective observational study. The Lancet Digital Health. 2021 Apr 1;3(4): e241-9.
17. Tariq A, Celi LA, Newsome JM, Purkayastha S, Bhatia NK, Trivedi H, **Gichoya JW**, Banerjee I. Patient-specific COVID-19 resource utilization prediction using fusion AI model. NPJ Digital Medicine. 2021 Jun 3;4(1):1-9.

18. Kathiravelu P, Sharma P, Sharma A, Banerjee I, Trivedi H, Purkayastha S, Sinha P, Cadrin-Chenevert A, Safdar N, **Gichoya JW**. A DICOM Framework for Machine Learning and Processing Pipelines Against Real-time Radiology Images. Journal of Digital Imaging. 2021 Aug 17:1-9.

19. Mahajan Y, Bhimireddy A, Abid A, **Gichoya JW,** Purkayastha S. PLHI-MC10: A dataset of exercise activities captured through a triple synchronous medically approved sensor. Data in Brief. 2021 Aug 20:107287.

20. Wang Y, Tariq A, Khan F, **Gichoya JW**, Trivedi H, Banerjee I. Query bot for retrieving patients' clinical history: A COVID-19 use-case. Journal of biomedical informatics. 2021 Nov 1; 123:103918.

21. Yala A, Mikhael PG, Strand F, Lin G, Satuluru S, Kim T, Banerjee I, **Gichoya J**, Trivedi H, Lehman CD, Hughes K. Multi-Institutional Validation of a Mammography-Based Breast Cancer Risk Model. Journal of Clinical Oncology. 2021 Nov: JCO-21.

22. Tariq A, Kallas O, Balthazar P, Lee SJ, Desser T, Rubin D, **Gichoya JW,** Banerjee I. Transfer language space with similar domain adaptation: a case study with hepatocellular carcinoma. Journal of Biomedical Semantics. 2022 Dec;13(1):1-2.

23. Davis MA, **Gichoya JW**, Banerjee I, Sung D, Newsome J, Vey BL, Gerard R, Khan F, Zavaletta V, Mazaheri S, Heilbrun ME. Balancing the Scales: An Analysis of Social Determinants of Health, Radiology Report Acuity, and Radiology Staffing Models in an Academic Health System. Journal of the American College of Radiology. 2022 Jan 1;19(1):172-7.

24. Pyrros A, Rodríguez-Fernández JM, Borstelmann SM, **Gichoya JW,** Horowitz JM, Fornelli B, Siddiqui N, Velichko Y, Sanmi OK, Galanter W. Detecting Racial/Ethnic Health Disparities Using Deep Learning From Frontal Chest Radiography. Journal of the American College of Radiology. 2022 Jan 1;19(1):184-91.

25. Yala A, Mikhael PG, Lehman C, Lin G, Strand F, Wan YL, Hughes K, Satuluru S, Kim T, Banerjee I, **Gichoya J**, Trivedi H, Barzilay R. Optimizing risk-based breast cancer screening policies with reinforcement learning. Nature medicine. 2022 Jan 13:1-8.

26. Dutt R, Mendonca D, Phen M, Broida S, Ghassemi M, **Gichoya J**, Banerjee I, Yoon T, Trivedi H. Automatic Localization and Brand Detection of Cervical Spine Hardware on Radiographs Using Weakly Supervised Machine Learning. Radiology: Artificial Intelligence. 2022 Jan 19: e210099.

27. **Gichoya JW**, Sinha P, Davis M, Dunkle JW, Hamlin SA, Herr KD, Hoff CN, Letter HP, McAdams CR, Puthoff GD, Smith KL. Multireader evaluation of radiologist performance for COVID-19 detection on emergency department chest radiographs. Clinical Imaging. 2022 Feb 1; 82:77-82.

28. Guo X, **Gichoya JW**, Purkayastha S, Banerjee I. CVAD-An unsupervised image anomaly detector. Software Impacts. 2022 Feb 1; 11:100195.

29. Guo X, **Gichoya JW**, Purkayastha S, Banerjee I. Margin-aware intraclass novelty identification for medical images. (***Featured on the cover of JMI issue for Jan 2022)*** *Journal* of Medical Imaging. 2022 Feb;9(1):014004.

30. Kathiravelu P, Zaiman Z, **Gichoya J,** Veiga L, Banerjee I. Towards an internet-scale overlay network for latency-aware decentralized workflows at the edge. Computer Networks. 2022 Feb 11; 203:108654.

31. Celi LA, Cellini J, Charpignon ML, Dee EC, Dernoncourt F, Eber R, Mitchell WG, Moukheiber L, Schirmer J, Situ J, Paguio J, Park J, **Wawira JG**, Yao S, MIT Critical Data. Sources of bias in artificial intelligence that perpetuate healthcare disparities–A global review. PLOS Digital Health. 2022 Mar 31;1(3): e0000022.

32. Zhang J, Whebell S, Gallifant J, Budhdeo S, Mattie H, Lertvittayakumjorn P, Lopez MD, Tiangco BJ, **Gichoya JW,** Ashrafian H, Celi LA. An interactive dashboard to

track themes, development maturity, and global equity in clinical artificial intelligence research. The Lancet Digital Health. 2022 Apr 1;4(4): e212-3.

33. Webster LA, Newsome J, Guo M, Lee S, Majdalany BS, **Gichoya J,** Platner M, Garcia-Reyes K, Duszak Jr R, Liu Y, Risk B, Cwiak CA, Kokabi N. Utilization and Comparative Effectiveness of Uterine Artery Embolization versus Hysterectomy for Severe Postpartum Hemorrhage: A National Inpatient Sample Study. Journal of Vascular and Interventional Radiology. 2022 Apr 1;33(4):427-35.

34. **Gichoya JW**, Banerjee I, Bhimireddy AR, Burns JL, Celi LA, Chen LC, Correa R, Dullerud N, Ghassemi M, Huang SC, Kuo PC, Lungren MP, Palmer L, Price B, Purkayastha S, Pyrros A, Oakden-Rayner L, Okechukwu C, Seyyed-Kantari L, Trivedi H, Wang R, Zaiman Z, Zhang H. AI recognition of patient race in medical imaging: a modelling study. The Lancet Digital Health. 2022 May 11.

35. Staziaki PV, Paul HY, Li MD, Daye D, Kahn CE, **Gichoya JW**. The Radiology: Artificial Intelligence Trainee Editorial Board: Initial Experience and Future Directions. Academic Radiology. 2022 May 21.

36. Sun J, Peng L, Li T, Adila D, Zaiman Z, Melton-Meaux GB, Ingraham NE, Murray E, Boley D, Switzer S, Burns JL, Huang K, Allen T, Steenburg S, **Gichoya JW**, Kummerfeld E, Tignanelli C. Performance of a chest radiograph ai diagnostic tool for covid-19: A prospective observational study. Radiology: Artificial Intelligence. 2022 Jun 1;4(4): e210217.

37. Lee SJ, Fan S, Guo M, Majdalany BS, Newsome J, Duszak Jr R, **Gichoya J**, Benjamin ER, Kokabi N. Prophylactic IVC filter placement in patients with severe intracranial, spinal cord, and orthopedic injuries at high thromboembolic event risk: A utilization and outcomes analysis of the National Trauma Data Bank. Clinical Imaging. 2022 Aug 5.

b. Manuscripts Submitted:

1. Best Practices and Scoring System on Reviewing A.I.-based Medical Imaging Papers: Part 1 – Classification (Submitted revision to Journal of Digital Imaging).

c. Review Articles:

1. Makeeva V, **Gichoya J**, Hawkins CM, Towbin AJ, Heilbrun M, Prater A. The application of machine learning to quality improvement through the lens of the radiology value network. *J Am Coll Radiol*. 2019;16(9 Pt B):1254-1258.

2. Vey BL, **Gichoya JW**, Prater A, Hawkins CM. The role of generative adversarial networks in radiation reduction and artifact correction in medical imaging. *J Am Coll Radiol*. 2019;16(9 Pt B):1273-1278.

3. Loya MF, Garcia-Reyes K, **Gichoya J,** Newsome J. Uterine Artery Embolization for Secondary Postpartum Hemorrhage. Techniques in Vascular and Interventional Radiology. 2021 Mar 1;24(1):100728.

4. Chan P, Garcia-Reyes K, Cronan J, Newsome J, Bercu Z, Majdalany BS, Resnick N, **Gichoya J**, Kokabi N. Managing Postembolization Syndrome–Related Pain after Uterine Fibroid Embolization. InSeminars in Interventional Radiology 2021 Aug (Vol. 38, No. 03, pp. 382-387). Thieme Medical Publishers, Inc.

5. Mazaheri S, Loya MF, Newsome J, Lungren M, **Gichoya JW**. Challenges of implementing artificial intelligence in interventional radiology. InSeminars in Interventional Radiology 2021 Dec (Vol. 38, No. 05, pp. 554-559). Thieme Medical Publishers, Inc.

6. Santos T, Tariq A, **Gichoya JW**, Trivedi H, Banerjee I. Automatic Classification of Cancer Pathology Reports: A Systematic Review. Journal of Pathology Informatics. 2022 Jan 1; 13:100003.
7. Jeong JJ, Tariq A, Adejumo T, Trivedi H, **Gichoya JW**, Banerjee I. Systematic Review of Generative Adversarial Networks (GANs) for Medical Image Classification and Segmentation. Journal of Digital Imaging. 2022 Jan 12:1-6.
8. Tadavarthi Y, Makeeva V, Wagstaff W, Zhan H, Podlasek A, Bhatia N, Heilbrun M, Krupinski E, Safdar N, Banerjee I, **Gichoya J**, Trivedi H. Overview of Noninterpretive AI Models for Safety, Quality, Workflow, and Education Applications in Radiology Practice. Radiology: Artificial Intelligence. 2022 Feb 2: e210114.

d. Symposium Contributions:

1. **Gichoya J,** Gamache RE, Vreeman DJ, Dixon BE, Finnell JT, Grannis S. An Evaluation of the Rates of Repeat Notifiable Disease Reporting and Patient Crossover Using a Health Information Exchange-based Automated Electronic Laboratory Reporting System. *AMIA Annual Symposium Proceedings*. 2012; 2012:1229-1236.
2. **Gichoya** J, Pearce C, Wickramasinghe N. Information architecture considerations in designing a comprehensive tuberculosis enterprise system in Western Kenya. *Studies in health technology and informatics.* 2013; 192:1120.
3. Oladiran O, **Gichoya J**, Purkayastha S. Conversion of JPG Image into DICOM Image Format with One Click Tagging. In: Duffy VG, ed. *Digital Human Modeling. Applications in Health, Safety, Ergonomics, and Risk Management: Health and Safety*. Vol 10287. Lecture notes in computer science. Cham: Springer International Publishing; 2017:61-70.
4. **Gichoya JW**, Alarifi M, Bhaduri R, Tahir B, Purkayastha S. Using cognitive fit theory to evaluate patient understanding of medical images. *Conf Proc IEEE Eng Med Biol Soc*. 2017;2017:2430-2433.
5. Purkayastha S, **Gichoya JW**, Addepally SA. Implementation of a single sign-on system between practice, research and learning systems. *Applied Clinical Informatics.* 2017;8(1):306-312.
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2. Maintainer of an Open-source Electronic Medical Records and Radiology Information System – LibreHealth. https://librehealth.io
3. Artificial Intelligence book club on "Hands on machine learning with Scikit-learn and TensorFlow - https://youtube.com/playlist?list=PLheFoa5iXad7r2AhM3mwGr3t_GUGumQC2

4. USMLE revision videos for medical students: Mogeni & Gichoya Notes - https://youtube.com/playlist?list=PLheFoa5iXad7cj-hNYD4SWlJipkXtArr0
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