

Jinchi Wei

Curriculum Vitae

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9724 Oak Hill Dr., Ellicott City, MD 21042

EDUCATION

University of California, San Francisco and Berkeley

September 2025 - present

Doctor of Philosophy (PhD), Computational Precision Health · GPA 4.0 · San Francisco and Berkeley, CA

Northwestern Health Sciences University

April 2023

Post Baccalaureate Pre-Health Program · Bloomington, MN

Johns Hopkins University (JHU)

May 2021

Master of Science in Engineering, Robotics (Concentration: Perception and Cognitive Systems) · Baltimore, MD

- Thesis: Image Analysis Techniques for Scoliosis Using Deep Learning

Johns Hopkins University (JHU)

May 2017

Bachelor of Science in Biomedical Engineering · Baltimore, MD

SELECTED PUBLICATIONS / PRESENTATIONS

Wei J, Bloch ES, Romano M, Bonham L, Tejani A, Vandevrede L, Tosun D, Rauschecker AM. Predicting ARIA incidence due to anti-amyloid therapy for Alzheimer's disease with multimodal risk modeling frameworks. npj Dementia. In press.

Wei J, China D, Ding K, Crawford N, Johnson N, Theodore N, Uneri A. Intraoperative Tracked Ultrasound Imaging for Resolving Deformations During Spine Surgery. SPIE Medical Imaging. 2024.

Wei J, Li D, Sing DC, Beeram I, Puvanesarajah V, Tornetta P, Fritz J, Yi PH. Detecting Upper Extremity Native Joint Dislocations Using Deep Learning: A Multicenter Study. Clin Imaging. 2022.

Wei J, Li D, Sing DC, Yang J, Beeram I, Puvanesarajah V, Della Valle CJ, Tornetta P, Fritz J, Yi PH. Detecting Total Hip Arthroplasty Dislocations Using Deep Learning: Clinical and Internet Validation. Emerg Radiol. 2022.

Wei J, Li D, Sing DC, Yang J, Beeram I, Puvanesarajah V, Della Valle CJ, Tornetta P, Fritz J, Yi PH. Can Images Crowdsourced from the Internet Be Used to Train Generalizable Joint Dislocation Deep Learning Algorithms? Skeletal Radiol. 2022.

PROFESSIONAL EXPERIENCE

Research Specialist, BRAIN (Rauschecker) Laboratory, University of California San Francisco Radiology

October 2024 - Present

- Building vision-language foundation models trained on 440k brain MRIs and radiology reports, with a focus on Alzheimer's disease
- Benchmarked 28 large language models at detecting drug-related brain swelling and bleeding in MRI reports; the best, including open models on UCSF servers, matched expert readers
- Causal inference on Alzheimer's drug therapy risk in real-world UCSF patients: 25% of APOE4 gene carriers developed brain swelling or bleeding within a year vs 6% of non-carriers
- Longitudinal brain tumor tracking using segmentation with uncertainty prediction

Machine Learning Engineer, CurieDx

October 2024 - Present

- Built and deployed multimodal deep learning models that screen for strep (AUC up to 0.95), COVID, and flu from patient-captured smartphone video and cough audio plus reported symptoms, covering the full pipeline from training to inference and patient use at 20+ sites
- Fine-tuning vision-language foundation models on this video data
- Object detection and segmentation networks to detect and localize anatomy in video from thousands of patients across 6 hospital sites
- Named key personnel on three federal awards (NIH NIBIB, BARDA DRiVe, BARDA SPARK) supporting this work

Course Instructor, Outset

June 2026 - July 2026

Berkeley, CA (on-site)

- Designed and taught a healthcare AI course for 16 high school students at UC Berkeley, building the full curriculum and materials from scratch
- In addition to interactive notebooks for ML/DL fundamentals and healthcare data, developed six end-to-end projects from publicly available datasets, including preprocessing, modeling, and evaluation based on student interests, ranging from optimal CRISPR cut points to estrogen effects on neurodegeneration
- Students reproduced and presented the projects as capstones

Research Assistant, I-STAR Laboratory, Carnegie Center for Surgical Innovation, JHU

July 2022 - October 2024

- Real-time, image-guided surgical robotic control and visualization platforms for spine and ankle surgery
- Attention-based end-to-end registration neural networks using synthesized CT (from diffusion) and 3D reconstructed US
- Modeled reinforcement learning tasks for robotic surgery in simulation using MuJoCo and OpenAI Gym

Research Assistant, Mathematical Institute of Data Science, JHU

July 2021 - July 2022

- Alleviate biases in neural networks towards protected attributes due to imbalances in clinical data by enforcing equalized odds
- Machine learning methods for dislocation classification and performance on diverse datasets
- Developing tools for skin tone and Fitzpatrick score extraction from lesion images

Course Assistant, Algorithms for Sensor-Based Robotics, JHU

September 2020 - May 2021

- Held weekly office hours and helped students with content, programming, and general questions remotely through Piazza
- Graded assignments and provided feedback, meeting with students outside of work hours where necessary

Research Assistant, ARCADE Lab, JHU

June 2019 - June 2021

- Master's thesis on a suite of algorithms to aid adolescent idiopathic scoliosis diagnosis
- Created synthetic X-rays, segmented vertebra for Cobb angle calculation, and classified Lenke and Risser scores
- Won the Kaggle COVID-19 Dataset award, responsible data on restrictions and guidelines to analyze impact on disease transmission

Technical Team Leader, Radiology AI Laboratory, JHU

January 2018 - May 2021

- Used PyTorch deep learning framework to classify a variety of MRI, X-Ray and CT scans in different medical conditions
- Guided team members and resident physicians on how to use our models and navigate the MARCC remote computing cluster
- Submitted over 20 peer-reviewed publications, abstracts, and presentations to conferences and journals such as RSNA, SIIM, JDI, JNO

Research Assistant, Center for Imaging Science, JHU

March 2018 - August 2019

- Analyzed effects of gene knockout in mice on myocardial infarctions through image segmentation and 3D reconstruction
- Performed MRI scans on mice, monitored vital signs and performed injections to enhance scar intensity

Teaching Assistant, Center for Talented Youth, JHU

July 2017 - March 2018

- Taught Mandarin Chinese to students internationally and within the U.S.
- Worked closely with administrators in developing the program and streamlining lesson materials

Research Assistant, Development Center for Biotechnology

July 2016 - December 2016

Taipei, Taiwan

- SDS page and Western blots, DNA transfection and analysis, mRNA isolation, fluorescence imaging for oncology drug development
- Interviewed leaders in the Taiwanese pharmaceutical industry and government about developments

Web Designer, Kannan Group of the Center for Nanomedicine at the Johns Hopkins Wilmer Eye Institute

April 2016 - July 2016

- Designed and created a website from scratch for a research team at the JHMI
- Migrated information from an outdated website while preserving the original

Research Assistant, Laboratory of Cell and Carbohydrate Engineering, Johns Hopkins Medical Institute

February 2014 - August 2015

- Developed sugar engineering-based cancer therapy applications, presented as a poster for the Neuro-X Symposium
- Familiarized with Western blots, cell culture techniques, HPLC, DNA and mRNA isolation

Research and Teaching Assistant, Division of Medical Imaging Physics, Johns Hopkins Medical Institute

June 2012 - December 2013

- Worked with point and line source phantoms, image reconstruction within SPECT, MRI, CT and PET imaging systems and algorithms
- Worked as the Teaching Assistant for Boot Camp summer course

COMMUNITY, VOLUNTEER, AND LEADERSHIP EXPERIENCE

Spine surgery shadowing, Johns Hopkins Medical Institute, Baltimore, MD

August 2022 - 2024

- Shadowed spinal and brain cases under Dr. Nicholas Theodore
- Observed laminectomies, craniectomies, and spinal fusions guided by the ExcelsiusGPS Robotic Navigation System

Volunteer, Gilchrist Hospice Care, Columbia MD

April 2022 - 2024

- Spent 2 hours a week caring for terminally ill patients at Gilchrist Columbia, helping nurses to administer aid when appropriate
- Accompanied and communicated with patients to understand their needs, stories, and be a warm, comfortable presence

Volunteer, Maryland Responds Medical Reserve Corps, Baltimore, MD

March 2021 - June 2021

- Helped during 5-hour shifts at the M&T Bank Stadium mass-vaccination site for COVID-19
- Directed patients through registration and the stadium and navigating the vaccination process, and translated for non-English speakers

Collaborator, Textron Educational Outreach, Baltimore, MD

January 2019 - May 2019

- Programmed interface/component interactions on FPGA boards using VHDL (Quartus) for various applications
- Instructed children at the Greenmount Rec Center and introduced them to building circuits and programming

Worship and Fellowship Leader, New Life SF and GCCC

2018 - 2020, 2025 - Present

- New Life SF, San Francisco, CA (2025 - Present): led worship team on piano, guitar, and vocals; led young professionals life group (2025 - 2026)
- Grace Chinese Christian Church (GCCC), Elkridge, MD (May 2018 - 2020): led congregation and worship team during Sunday services; taught young adult fellowships, Bible studies and K-12 Sunday school

Instructor (Group Leader), Thread Tutoring and Mentoring (formerly Incentive Mentoring Program)

January 2014 - April 2015

- Extensive one-on-one tutoring, directed a group of 6 tutors for underperforming high school students
- Implemented strategies, taught skills, organized group outings, and directed volunteers on connecting with students

Instructor, JHU Tutorial Program, JHU

September 2013 - December 2013

- Weekly visits to the Baltimore City Jail to tutor juvenile males in various subjects
- Taught breakdancing to inner-city Baltimore children both on campus and at the local YMCA

President and Founder, Student Society for Stem Cell Research, JHU

September 2011 - December 2012

- Tutored inner-city Baltimore children as part of the STEMulated Minds Program to increase youth literacy and math skills

- Presented current trends in stem cell research to other members during monthly discussions on innovations in the field

SKILLS

- Proficient in Python, Java, MATLAB, C++, deep learning packages such as PyTorch, OpenCV, ROS, web design
- Cell culture/counting, western blots, PCR, HPLC, DNA isolation/transfection
- Native fluency in English and Mandarin Chinese, basic proficiency in Spanish

PUBLICATIONS

1. **Wei J**, Bloch ES, Romano M, Bonham L, Tejani A, Vandevrede L, Tosun D, Rauschecker AM. Predicting ARIA incidence due to anti-amyloid therapy for Alzheimer's disease with multimodal risk modeling frameworks. npj Dementia. In press.
2. Guennoun Y, Nedelec P, McArthur M, Bloch EM, **Wei J**, Sugrue LP, Calabrese E, Rauschecker AM. Segmenting with confidence through uncertainty quantification for brain tumor imaging. npj Digital Medicine. 2026. doi:10.1038/s41746-026-02902-0.
3. China D, MacLean LJ, **Wei J**, Theodore N, Johnson N, Crawford N, Ding K, Uneri A. Automated labeling using tracked ultrasound imaging: Application in tracking vertebrae during spine surgery. Medical Image Analysis. 2025.
4. Vijayan RC, Sheth NM, **Wei J**, Venkataraman K, Ghanem D, Shafiq B, Siewerdsen JH, Zbijewski W, Li G, Cleary K, Uneri A. Robot-Assisted Reduction of the Ankle Joint via Multi-Body 3D-2D Image Registration. IEEE Transactions on Medical Robotics and Bionics. 2024;6(4):1591–1602. doi:10.1109/TMRB.2024.3464095.
5. Li F, Xu H, Cao SD, **Wei J**, Rhodes D, Siewerdsen JH, Gonzalez LF, Uneri A. Guiding Endovascular Catheters Using Electromagnetic Tracking and Path-Based Registration for Brain Aneurysm Treatment. SPIE Medical Imaging. March 2024.
6. **Wei J**, China D, Ding K, Crawford N, Johnson N, Theodore N, Uneri A. Intraoperative Tracked Ultrasound Imaging for Resolving Deformations During Spine Surgery. SPIE Medical Imaging. 2024.
7. Vijayan RC, Sheth NM, **Wei J**, Venkataraman K, Ghanem D, Shafiq B, Siewerdsen JH, Zbijewski W, Li G, Cleary K, Uneri A. "Robot-assisted reduction of the ankle joint via multi-body 3D-2D image registration." Comput Med Imaging Graph. 2023
8. Zhang R, **Wei J**, Tipre D, Weiss RG, Younes L, Ardekani S. Cardiac MRI Tagline Extraction Based on Diffeomorphic Active Contour Algorithm. International Conference on Functional Imaging and Modeling of the Heart. June 2023.
9. B Turk, A Fine, Y Fan, **J Wei**, J Keller, G Raymond, M Unberath, A Fatemi. Machine Learning approaches to classifying and predicting disease progression in Adrenomyeloneuropathy. Annals of Neurology. October 2022.
10. Li D, Bharti B, **Wei J**, Sulam J, Yi PH. Sex Imbalance Produces Biased Deep Learning Models For Knee Osteoarthritis Detection. Can Assoc Radiol J. August 2022.
11. **Wei J**, Li D, Sing DC, Beeram I, Puvanesarajah V, Tornetta P, Fritz J, Yi PH. Detecting Upper Extremity Native Joint Dislocations Using Deep Learning: A Multicenter Study. Clin Imaging. 2022.
12. **Wei J**, Li D, Sing DC, Yang J, Beeram I, Puvanesarajah V, Della Valle CJ, Tornetta P, Fritz J, Yi PH. Detecting Total Hip Arthroplasty Dislocations Using Deep Learning: Clinical and Internet Validation. Emerg Radiol. 2022.
13. **Wei J**, Li D, Sing DC, Yang J, Beeram I, Puvanesarajah V, Della Valle CJ, Tornetta P, Fritz J, Yi PH. Can Images Crowdsourced from the Internet Be Used to Train Generalizable Joint Dislocation Deep Learning Algorithms? Skeletal Radiol. 2022.
14. Huang L, Jin A, **Wei J**, Tipre D, Liu C, Weiss R, Ardekani S. 3D Attention M-Net for Short-Axis Left Ventricular Myocardium Segmentation in Mice MR Cardiac Images. 2021 43rd Annual International Conference of the IEEE Engineering in Medicine & Biology Society (EMBC). November 2021
15. Liu TYA, **Wei J**, Zhu, H., Subramanian, P., Myung, D., Yi, P., Hui, F., Unberath, M., Ting, D., Miller, N. Detection of Optic Disc Abnormalities in Color Fundus Photographs Using Deep Learning. Journal of Neuro-Ophthalmology. September 2021.
16. Yi PH, **Wei J**, Kim TK, Shin J, Sair HI, Hui FK, Hager GD, Lin C. Radiology "Forensics": Determination of Age & Sex from Chest X-Rays Using Deep Learning. Emergency Radiology. June 2021.

17. Liu, T. Y., Zhu, H., Chen, H., Arevalo, J. F., Hui, F. K., Yi, P. H., **Wei, J.**, Unberath, M., Correa, Z. M. Gene Expression Profile Prediction in Uveal Melanoma Using Deep Learning: A Pilot Study for Development of an Alternative Survival Prediction Tool. *Ophthalmology Retina*. December 2020.
18. Liu TYA, Ting DSW, Yi PH, **Wei J**, Zhu H, Subramanian PS, Li T, Hui FK, Hager GD, Miller NR. Deep Learning and Transfer Learning for Optic Disc Laterality Detection: Implications for Machine Learning in Neuro-ophthalmology. *Journal of Neuro-Ophthalmology*. June 2020.
19. Yi PH, Kim TK, **Wei J**, Li X, Hager GD, Sair HI, Fritz J. Automated Detection and Classification of Shoulder Arthroplasty Models Using Deep Learning. *Skeletal Radiol*. October 2020.
20. Killeen, BD, Wu, JY, Shah, K, Zapaishchykova, A, Nikutta, P, Tamhane, A, Chakraborty, S, **Wei, J**, Gao, T, Thies, M, Unberath, M. A County-level Dataset for Informing the United States' Response to COVID-19. arXiv:2004.00756v1 [cs.CY]. April 2020.
21. Yi PH, **Wei J**, Kim TK, Sair HI, Hui FK, Hager GD, Fritz J, Oni JK. Automated Detection & Classification of Knee Arthroplasty Using Deep Learning. *Knee*. March 2020.
22. Yi PH, Lin A, **Wei J**, Yu A, Sair HI, Hui FK, Hager GD, Harvey SC. Deep-Learning Based Semantic Labeling for 2D Mammography & Comparison of Complexity for Machine Learning Tasks. *J Digit Imaging*. June 2019.
23. Kim TK, Yi PH, **Wei J**, Shin JW, Hager GD, Hui FK, Sair HI, Lin CT. Deep Learning Method for Automated Classification of Anteroposterior and Posteroanterior Chest Radiographs. *Journal of Digital Imaging*. April 2019.
24. Lee BC, Tward D, **Wei J**, Tipre D, Weiss RG, Miller M, Ardekani S. Diffeomorphic Upsampling of Serially Acquired Sparse 2D Cross-Sections in Cardiac MRI. 2019 41st Annual International Conference of the IEEE Engineering in Medicine & Biology Society (EMBC). July 2019.
25. Yi PH, Kim TK, **Wei J**, Shin JW, Hui FK, Sair, HI, Hager GD, Fritz Jan. Automated Semantic Labeling of Pediatric Musculoskeletal Radiographs Using Deep Learning. *Pediatric Radiology*. April 2019.
26. Zuo L, Wei W, Morris M, **Wei J**, Gorbounov M, Wei C. New technology and clinical applications of nanomedicine. *Medical Clinics of North America*. September 2007.

RESEARCH PRESENTATIONS

1. Rauschecker AM, **Wei J (presenting author; led analysis)**, Romano M, Girma S, Beheshtian E, Nedelec P, Eghbali R, Sugrue L, Rubenstein JL. Automated Segmentation and Radiogenomic Analysis of Primary CNS Lymphoma. Poster presented at: NCCN 2026 Annual Conference; March 27–29, 2026; Orlando, FL.
2. **Wei J**, Romano M, Girma S, Beheshtian E, Rauschecker A. "Interpretable machine learning framework for predicting genomic mutations in primary central nervous system lymphoma on clinical brain MRI." Poster presentation, ASFNR 2025 Annual Meeting, Austin, TX. September 18–21, 2025.
3. **Wei J**, China D, Ding K, Crawford N, Johnson N, Theodore N, Uneri A. "Intraoperative Tracked Ultrasound Imaging for Resolving Deformations During Spine Surgery." Oral presentation, SPIE Medical Imaging 2024, 12928-34, San Diego, CA. February 21, 2024.
4. Li F, Xu H, Cao S, **Wei J**, Rhodes D, Siewerdsen JH, Gonzalez LF, Uneri A. "Guiding Endovascular Catheters Using Electromagnetic Tracking and Path-Based Registration for Brain Aneurysm Treatment." Oral presentation, SPIE Medical Imaging 2024, 12928-11, San Diego, CA. February 19, 2024.
5. China D, **Wei J**, Ding K, Crawford N, Johnson N, Theodore N, Uneri A. Automated Ultrasound Image Labeling and Vertebra Segmentation for Intraoperative Guidance of Spine Surgery. *American Association of Physicists in Medicine (AAPM)*. July 23–27, 2023.
6. R.C. Vijayan, K. Venkataraman, **J. Wei**, N. M. Sheth, B. Shafiq, J.H. Siewerdsen, W. Zbijewski, G. Li, K. Cleary, A. Uneri. "Multi-body 3D-2D registration for robot-assisted joint reduction: preclinical evaluation in the ankle syndesmosis." Oral presentation, SPIE Medical Imaging, San Diego, CA. February 23rd, 2023.
7. **Wei J**, Li D, Sing D, Yang J, Beeram I, Puvanesarajah V, Della Valle C, Tornetta P, Fritz J, Yi PH. Can Images Crowdsourced From The Internet Be Used To Train Clinically Useful Joint Dislocation Algorithms? Proof-Of-Concept For Rare Injuries. Podium presentation, 2022 Annual Meeting of the Society for Imaging Informatics in Medicine, Orlando, FL.

8. **Wei J**, Li D, Yang J, Sing D, Beeram I, Puvanesarajah V, Tornetta P, Della Valle C Fritz J, Yi PH. Detecting Total Hip Arthroplasty Dislocations Using Deep Learning: Multicenter Validation. Podium presentation, 2022 Annual Meeting of the Society for Imaging Informatics in Medicine, Orlando, FL.
9. Yi PH, Xin K, **Wei J**, Sing DC, Tornetta III P, Hager GD, Fritz J. Knee Imaging Biomarkers For Sex And Race: A Deep Learning Analysis Of The Osteoarthritis Initiative. Podium presentation, 2020 Annual Meeting of the Society for Imaging Informatics in Medicine, Austin, TX.
10. Yi PH, Kim TK, Li X, **Wei J**, Hager GD, Hui FK, Sair HI, Fritz J. Deep Learning-Based Workflow For Automated Detection, Classification, And Typing Of Arthroplasty Implants. Poster presentation, Society of Skeletal Radiology Annual Meeting 2020, Huntington Beach, CA.
11. Yi PH, Xin K, Bonham L, Tsehay Y, **Wei J**, Hager GD, Fritz J. Osseous Imaging Biomarkers For Sex And Race: A Deep Learning Analysis Of The Osteoarthritis Initiative. Poster presentation, Society of Skeletal Radiology Annual Meeting 2020, Huntington Beach, CA.
12. Yi PH, **Wei J**, Kim TK, Fritz J, Oni J. Automated Detection & Classification of Knee Arthroplasty Designs Using Deep Learning. Poster presentation, 2019 Annual Meeting of the American Association of Hip and Knee Surgeons, Dallas, TX.
13. Yi PH, **Wei J**, Kim TK, Sair HI, Hui FK, Hager GD, Fritz J, Oni JK. Automated Detection & Classification of Knee Arthroplasty Using Deep Learning. Poster presentation, 2019 Johns Hopkins Research Symposium on Engineering in Healthcare, Baltimore, MD.
14. Kim TK, Yi PH, Shin J, **Wei J**, Hager G, Hui FK, Lin C. PedsCheXNet: Deep Learning-Based Automated Detection of Pediatric Thoracic Diseases. Poster presentation, 2018 Johns Hopkins University School of Medicine Student Research Rounds Poster Session, Baltimore, MD.
15. Yi PH, Kim TK, **Wei J**, Shin J, Kim T, Hager GD, Sair H, Fritz J. Deep Learning-Based Identification Of Traditional Hip, Knee, and Shoulder Arthroplasty and Application to Alternative Arthroplasty Designs. Clinical Abstract Poster presentation, Machine Learning for Healthcare 2018, Stanford, CA.
16. Kim TK, Yi PH, **Wei J**, Shin J, Kim T, Hager GD, Fritz J, Sair H. External Application of Deep Convolutional Neural Networks Trained on Radiographs to Cross-Sectional Imaging in the Spine: Applications for Semantic Labeling. Clinical Abstract Poster presentation, Machine Learning for Healthcare 2018, Stanford, CA.
17. Yi PH, Lin A, **Wei J**, Sair HI, Hui FK, Hager GD, Harvey S. Deep-Learning Based Semantic Labeling for 2D Mammography & Comparison of Computational Complexity for Machine Learning Tasks. Podium presentation, 3rd Annual Scientific Conference on Machine Intelligence in Medical Imaging, Society for Imaging Informatics in Medicine, San Francisco, CA.
18. Kim TK, Yi PH, **Wei J**, Shin J, Barnoy Y, Kim T, Hager GD, Sair H, Lin C, Hui FK, Fritz J. Deep Learning for Detection of Hip, Knee, and Shoulder Arthroplasty Dislocations and “Transfer Learning” to Native Joint Dislocations. Poster presentation, Radiological Society of North America 103rd Scientific Assembly and Annual Meeting, Chicago, IL.
19. Yi PH, Kim TK, **Wei J**, Shin J, Kim T, Hager GD, Lin C, Sair H, Hui FK, Fritz J. Semantic Labeling of Pediatric Musculoskeletal Radiographs Using Deep Learning. Podium presentation, Radiological Society of North America 103rd Scientific Assembly and Annual Meeting, Chicago, IL.
20. Yi PH, Kim TK, **Wei J**, Shin J, Kim T, Hager GD, Sair H, Hui FK, Lin C. Radiology “Forensics”: Determination of Age and Gender from Chest X-Rays Using Deep Learning. Podium presentation, Radiological Society of North America 103rd Scientific Assembly and Annual Meeting, Chicago, IL.
21. Yi PH, Kim TK, **Wei J**, Shin J, Kim T, Hager GD, Harvey S, Sair H, Hui FK, Lin C. Identification of Pneumoperitoneum on Chest Radiographs Using Deep Learning. Podium presentation, Radiological Society of North America 103rd Scientific Assembly and Annual Meeting, Chicago, IL.
22. Kim TK, Yi PH, Shin J, **Wei J**, Kim T, Hager GD, Sair H, Hui FK, Lin C. PedsCheXNet: Deep Learning-Based Automated Detection of Pediatric Thoracic Diseases. Podium presentation, Radiological Society of North America 103rd Scientific Assembly and Annual Meeting, Chicago, IL.
23. Kim TK, Yi PH, **Wei J**, Shin J, Barnoy Y, Kim T, Hager GD, Sair H, Lin C, Hui FK, Fritz J. Deep Learning for Detection of Hip, Knee, and Shoulder Arthroplasty Dislocations and “Transfer Learning” to Native Joint Dislocations. Scientific Discovery Theater Poster & Oral Presentation, Radiological Society of North America 103rd Scientific Assembly and Annual Meeting, Chicago, IL.

24. Yi PH, Kim T, **Wei J**, Hager G, Fritz J. Deep Learning for Automated Diagnosis of Shoulder, Elbow, Hip, and Knee Dislocations. Scientific Electronic Exhibit, 119th Annual Meeting of the American Roentgen Ray Society, Honolulu, HI.
25. Yi PH, Kim T, **Wei J**, Hui FK, Hager G, Lin C. High-Throughput Automated Pediatric Chest and Abdominal Radiograph Semantic Labeling Using Deep Learning. Scientific Electronic Exhibit, 119th Annual Meeting of the American Roentgen Ray Society, Honolulu, HI.
26. Arun A, Yi PH, Bailey C, **Wei J**, Hager GD, Hui FK. Deep Learning for Detection of IVC Filters on Radiographs & Fluoroscopic Images. ePoster presentation, 2019 Society of Interventional Radiology Annual Scientific Meeting, Austin, TX.
27. Yi PH, Garza J, Wang J, **Wei J**, Hui FK, Lin C, Hager GD, Sair HI. Is the Juice Worth the Squeeze? Learning Curve of a Chest Radiograph Semantic Labeling DCNN vs. Training Time. Podium presentation, Radiological Society of North America 104th Scientific Assembly and Annual Meeting, Chicago, IL.
28. Yi PH, Kim TK, Li X, **Wei J**, Hager GD, Hui FK, Sair HI, Fritz J. Automated Detection and Classification of Shoulder Arthroplasty Models Using Deep Learning. Podium presentation, Radiological Society of North America 104th Scientific Assembly and Annual Meeting, Chicago, IL.
29. Yi PH, **Wei J**, Hager GD, Sair HI. Simulated Brain MRI Images For Deep Learning: Potential Alternative to GANs. Podium presentation, 4th Annual Scientific Conference on Machine Intelligence in Medical Imaging, Society for Imaging Informatics in Medicine, Austin, TX.
30. Oni J, Yi PH, **Wei J**, Kim TK, Sair HI, Fritz J, Hager GD. Automated Detection & Classification of Knee Arthroplasty Using Deep Learning. Podium presentation, International Society for Technology in Arthroplasty 32nd Annual Congress, Toronto, Canada.

RESEARCH FUNDING

BARDA SPARK, BARDA Accelerator Network (BAN) 2.0, Special Populations Hub

July 2026 - January 2027

- A multimodal AI model using epidemiology and digital biomarkers on a phone, to predict influenza in pediatric patients
- Role: Key personnel
- Subaward 30008891-04 to CurieDx, Inc. under prime award BARDA OTA 75A50124C00035
- Pass-through entity: Children's Research Institute, Children's National Hospital (prime PI: Julia Finkel, MD)
- HHS / ASPR / BARDA · \$200,000

National Institutes of Health, NIBIB (PORTENT)

January 2026 - December 2026

- StrepAI: Expanding Point-of-Care Strep Throat Screening for Global Deployment Readiness
- Role: Key personnel
- Subaward to CurieDx, Inc.; subaward site Weill Cornell Medicine (site PI: Ji Won Kim, MD)
- National Institute of Biomedical Imaging and Bioengineering · \$66,540.46 for the 2026 budget period

BARDA DRIVE EZ-BAA Contract

June 2024 - May 2026

- Transforming Respiratory Infection Surveillance with Computer Vision on a Smartphone (AOI #17)
- Role: Key personnel
- Contract 75A50124C00005 to CurieDx, Inc., awarded 28 June 2024
- HHS / ASPR / BARDA, DRIVE EZ-BAA · \$748,859.38

AWARDS AND HONORS

Graduate Research Mentorship Fellowship, UCSF Division of Graduate Education and Postdoctoral Affairs

September 2026 - August 2027

- Selected by the faculty of the Academic Senate Graduate Council for outstanding academic achievement and potential for future contributions to biomedical and health sciences research
- \$10,000 stipend over 12 months plus resident tuition and fees, 2026-27 academic year

SIIM 2020

May 2020

- Society for Imaging Informatics in Medicine "The Helen and Paul Chang Foundation" New Investigator Travel Award: "Knee Imaging Biomarkers For Sex And Race: A Deep Learning Analysis Of The Osteoarthritis Initiative"

Kaggle COVID-19 Dataset Award

April 2020

- For “A County-level Dataset for Informing the United States’ Response to COVID-19”, evaluated based on usefulness and documentation

Radiological Society of North America

2018-2019

- 2019 Radiological Society of North America Trainee Research Prize (Resident): “Semantic Labeling of Pediatric Musculoskeletal Radiographs Using Deep Learning”
- 2018 Radiological Society of North America Trainee Research Prize (Student): “Deep Learning for Detection of Hip, Knee, and Shoulder Arthroplasty Dislocations and “Transfer Learning” to Native Joint Dislocations”

Team Captain, Maryland State Science Olympiad

June 2009 – June 2010

- 2009 Second Place Overall, Award of Excellence from Johns Hopkins University State Tournament
- 2010 Third Place Overall

Team Captain, Lincoln Douglas Debate Team

June 2009 – June 2010

Piano performer at various embassies, the United Nations, Lincoln Center, Strathmore and Carnegie Hall

August 2000 – April 2010