

Dong Hye Ye

CONTACT INFORMATION	Marquette University Department of Electrical and Computer Engineering Haggerty 218, 1515 W. Wisconsin Ave. Milwaukee, WI 53233 USA	<i>Phone:</i> +1-414-288-4114 <i>E-mail:</i> donghye.ye@marquette.edu <i>Homepage:</i> https://sites.google.com/view/donghyeye/
ACADEMIC APPOINTMENT	Assistant Professor , Marquette University Department of Electrical and Computer Engineering Research Assistant Professor , Purdue University Research Scientist , Purdue University Postdoctoral Scholar , Purdue University School of Electrical and Computer Engineering	August 2018 to present August 2017 to August 2018 September 2015 to August 2017 October 2013 to August 2015
EDUCATION	University of Pennsylvania , Philadelphia, PA Ph.D., Bioengineering, August 2013 • Adviser: Professor Christos Davatzikos, Professor Kilian Pohl Georgia Institute of Technology , Atlanta, GA M.S., Electrical and Computer Engineering, May 2008 Seoul National University , Seoul, South Korea B.S., Electrical and Computer Engineering, February 2007	
SUMMARY	Scholarship Research Interests <ul style="list-style-type: none">• Deep Learning for Image/Signal Processing (e.g., Generative Adversarial Network)• Medical Image Analysis: Brain MRI, CT Reconstruction, Disease Classification• High-Throughput Microscopic Imaging Publication <ul style="list-style-type: none">• 13 refereed journal papers• 36 refereed conference papers• 2 filed patent applications• Google Scholar citations = 3216, h-index = 17, i10-index = 21 (as of April 30, 2021) Grants <ul style="list-style-type: none">• External: Total \$5,178,250; \$818,332 as PI• Internal: Total \$61,000 as PI Teaching Courses Taught <ul style="list-style-type: none">• Machine Learning for Image Processing• Deep Learning Software for Computer Vision• Linear System Analysis Research Student Advising <ul style="list-style-type: none">• 2 Ph.D. students• 4 M.S. students Service Selected Service at University <ul style="list-style-type: none">• College of Engineering Technology Advisory Committee 2019-present• EECE Graduate Committee 2020-present	

Service Outside University

- Reviewer for 9 journals and 2 conferences
- Member of the organizing or technical program committee for 2 conferences

AWARDS

Paper Awards

- **Honorable Mention Poster Award:** 2021 SPIE International Conference on Medical Imaging (SPIE MI)
- **Best Paper Award:** 2018 International Symposium on Electronic Imaging - Imaging and Multimedia Analytics in a Web and Mobile World (EI-IMAWM)
- **Best Paper Runner-up Award:** 2015 International Conference on Image Processing (ICIP)
- **Best Paper Award:** 2012 Multimodal Brain Tumor Segmentation Challenge (BRATS)
- **Top 10 Student Paper Award:** 2011 International Symposium on Biomedical Imaging (ISBI)
- **Best Paper Award:** 2010 Medical Image Analysis - Medical Image Computing and Computer Assisted Intervention (MedIA-MICCAI)

Travel Awards

- **Marquette Faculty Development Travel Award:** 2020 International Symposium on Biomedical Imaging (ISBI)
- **Marquette Faculty Development Travel Award:** 2018 Global Conference on Signal and Information Processing (GlobalSIP)
- **Purdue Research Foundation International Travel Award:** 2018 International Conference on Acoustics, Speech and Signal Processing (ICASSP)
- **Student Travel Award:** 2012 International Symposium on Biomedical Imaging (ISBI)
- **Student Travel Award:** 2011 International Workshop on Pattern Recognition in NeuroImaging (PRNI)

EXTERNAL GRANTS

- [1] Role: **Principal Investigator**, "Deep Learning-based Image Enhancement and Standardization for Multi-Contrast Brain MRI", Korea Institute of Information & Communications Technology Planning & Evaluation, 6/1/2021~ 5/30/2022, \$51,000.
- [2] Role: **Principal Investigator**, "Digital Lead and Financial Representative Matching By Ensemble Learning and Graph Matching", Northwestern Mutual Data Science Institute, 1/1/2021~ 1/31/2022, \$124,993.
- [3] Role: **Principal Investigator**, "Spectral CT Metal Artifact Reduction and Segmentation using Deep Learning", Korea Institute of Information & Communications Technology Planning & Evaluation, 6/1/2020~ 5/31/2021, \$53,275.
- [4] Role: **Co-Investigator**, PI: Daniel Zitomer, "Novel Algorithm to Increase Anaerobic Co-Digestion Renewable Energy", Milwaukee Metropolitan Sewerage District, 1/1/2020~ 3/31/2021, \$89,000. (Ye Allocation: \$37,845)
- [5] Role: **Principal Investigator**, "CT Image Reconstruction and Analysis using Deep Learning", Korea Institute of Information & Communications Technology Planning & Evaluation, 7/1/2019~ 6/30/2020, \$48,300.
- [6] Role: **Co-Investigator**, PI: Julia Laskin, "Novel Platform for Quantitative Subcellular Resolution Imaging of Human Tissues Using Mass Spectrometry." National Institute of Health (NIH) UG3HL145593, 9/1/2018~ 6/30/2022, \$2,047,967. (Ye Allocation: \$259,651)
- [7] Role: **Co-Investigator**, PI: Taly Gilat-Schmidt, "Software Tool for Routine, Rapid, Patient-Specific CT Organ Dose Estimation." National Institute of Health (NIH) U01EB023822, 7/1/2017~ 3/31/2021, \$2,482,602. (Ye Allocation: \$65,092)

- [8] Role: **Principal Investigator**, "Small-Scale Characterization of Homemade Explosives (HMEs) - Characterization and Elimination of Illicit Explosives." Department of Homeland Security, 1/1/2017~ 6/30/2017, \$11,113.
- [9] Role: **Principal Investigator**, "Adaptive Automated Threat Recognition Algorithm for CT-based Object Detection Systems." Department of Homeland Security, 12/1/2016~ 12/30/2018, \$200,000.
- [10] Role: **Principal Investigator**, "Automatic, Near-Real-Time Detection of Moving Objects in Video." Sandia Corporation, 9/2/2016~9/1/2017, \$70,000.

INTERNAL
GRANTS

- [1] Role: **Principal Investigator**, "Deep Learning for Intra-operative Breast Cancer Margin Assessment in Deep Ultraviolet Scanning Microscope." Marquette Summer Faculty Fellowship, 7/1/2021~ 8/9/2021, \$5,500.
- [2] Role: **Principal Investigator**, "Deep Learning for Increasing Anaerobic Co-Digestion of Waste Water." Marquette OPUS Undergraduate Research Fellowship, 3/15/2020~ 12/31/2020, \$5,000.
- [3] Role: **Principal Investigator**, "Transforming Mass Spectrometry Imaging Using Machine Learning." Marquette Summer Faculty Fellowship, 7/1/2019~ 8/9/2019, \$5,500.
- [4] Role: **Principal Investigator**, "Deep Learning for Automatic Image Quality Assessment of Retinal Imaging." Marquette OPUS Undergraduate Research Fellowship, 3/15/2019~ 12/31/2019, \$5,000.
- [5] Role: **Principal Investigator**, Co-PI: Charles Bouman, Juan Wachs, "Automated Target Recognition for Weapon Seeker Target Acquisition or Re-acquisition from Unmanned Aerial Vehicles (UAVs)." Purdue institute for Global Security and Defense Innovation (i-GSDI), 4/16/2018~ 9/15/2018, \$40,000.

REFEREED
JOURNAL
PUBLICATIONS

Author names marked with underline denote advised students

- [1] T. Lu, J. Jorns, M. Patton, R. Fisher, A. Emmrich, T. Doehring, T. Gilat-Schmidt, **D. Ye**, T. Yen, B. Yu. "Rapid Assessment of Breast Tumor Margins using Deep Ultraviolet Fluorescence Scanning Microscopy." *Journal of Biomedical Optics*, 25(12), 126501, November 2020.
- [2] HuBMAP Consortium (Purdue TTD: J. Laskin, **D. Ye**, K. Burnum-Johnson, P. Piehowski, C. Ansong, Y. Zhu). "The Human Body at Cellular Resolution: the NIH Human Biomolecular Atlas Program." *Nature*, 574:187–192, October 2019.
- [3] Z. Chang, **D. Ye**, S. Srivastava, J-B. Thibault, K. Sauer, C. Bouman. "Prior-Guided Metal Artifact Reduction for Iterative X-Ray Computed Tomography." *IEEE Transactions on Medical Imaging*, 38(6):1532–1542, June 2019.
- [4] S. Zhang, Z. Song, D. Godaliyadda, **D. Ye**, A. Chowdhury, A. Sengupta, G. Buzzard, C. Bouman, G. Simpson. "Dynamic Sparse Sampling for Confocal Raman Microscopy." *Analytical Chemistry*, 90(7):4461–4469, March 2018.
- [5] D. Godaliyadda, **D. Ye**, M. Uchic, M. Groeber, G. Buzzard, C. Bouman. "A Framework for Dynamic Image Sampling Based on Supervised Learning." *IEEE Transactions on Computational Imaging*, 4(1):1–16, March 2018.
- [6] A. Chowdhury, **D. Ye**, Z. Song, S. Zhang, H. Hedderich, B. Mallick, S. Thirunahari, S. Ramakrishnan, A. Sengupta, E. Gualtieri, C. Bouman, G. Simpson. "Second Harmonic Generation Guided Raman Spectroscopy for Sensitive Detection of Polymorph Transitions." *Analytical Chemistry*, 89(11):5958–5965, May 2017.

- [7] N. Scarborough, D. Godaliyadda, **D. Ye**, D. Kissick, S. Zhang, J. Newman, M. Sheedlo, A. Chowdhury, R. Fischetti, C. Das, G. Buzzard, C. Bouman, G. Simpson. "Dynamic X-ray Diffraction Sampling for Protein Crystal Positioning." *Journal of Synchrotron Radiation*, 24(1):188–195, January 2017.
- [8] R. Zhang, **D. Ye**, D. Pal, J-B. Thibault, K. Sauer, C. Bouman. "A Gaussian Mixture MRF for Model-Based Iterative Reconstruction." *IEEE Transactions on Computational Imaging*, 2(3):359–374, September 2016.
- [9] B. Menzey, A. Jakaby, S. Bauery, J. Kalpathy-Cramery, K. Farahaniy, J. Kirby, Y. Burreny, N. Porzy, J. Slotboomy, R. Wiesty, L. Lanczy, E. Gerstnery, T. Arbel, B. Avants, N. Ayache, P. Buendia, D. Collins, N. Cordier, J. Corso, A. Criminisi, T. Das, H. Delingette, C. Demiralp, C. Durst, J. Festa, E. Geremia, B. Glocker, P. Golland, X. Guo, A. Hamamci, K. Iftekharuddin, R. Jena, N. John, E. Konukoglu, D. Lashkari, J. Mariz, R. Meier, S. Pereira, D. Precup, S. Price, T. Riklin-Raviv, S. Reza, M. Ryan, L. Schwartz, H. Shin, J. Shotton, C. Silva, N. Sousa, N. Subbanna, G. Szekely, T. Taylor, O. Thomas, N. Tustison, G. Unal, M. Weber, M. Wintermark, **D. Ye**, L. Zhao, B. Zhao, D. Zikic, M.I Prastaway, M. Reyesyz, K. Leemputyz. "The Multimodal Brain Tumor Image Segmentation Benchmark (BRATS)." *IEEE Transactions on Medical Imaging*, 34(10):1993–2024, October 2015.
- [10] **D. Ye**, B. Desjardins, J. Hamm, H. Litt, K. M. Pohl. "Regional Manifold Learning for Disease Classification." *IEEE Transactions on Medical Imaging*, 33(6):1236–1247, June 2014.
- [11] E. Konukoglu, B. Glocker, **D. Ye**, A. Criminisi, K. M. Pohl. "Discriminative Segmentation-Based Evaluation through Shape Dissimilarity." *IEEE Transactions on Medical Imaging*, 31(12):2278–2289, December 2012.
- [12] J. Hamm, **D. Ye**, R. Verma, C. Davatzikos. "GRAM: A Framework for Geodesic Registration on Anatomical Manifolds." *Medical Image Analysis*, 14(5):633–642, October 2010. **MedIA-MICCAI Best Paper Award**
- [13] **D. Ye**, C. Davatzikos, H. Litt. "Characterizing Right Ventricular Shape Variations via Subject-Adapted Voxel-Based Morphometry: Application to CMR of Tetralogy of Fallot." *Journal of Cardiovascular Magnetic Resonance*, 12(Suppl 1):237, January 2010. *IF: 5.184*

PEER-REVIEWED
CONFERENCE
PUBLICATIONS

Author names marked with underline denote advised students

- [1] C. Kan, R. Povinelli, **D. Ye**. "Enhancing Multi-Channel EEG Classification with Gramian Temporal Generative Adversarial Networks." In: *Proceedings of the 2021 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP 2021)*, June 6–11, 2021.
- [2] C. Kan, T. Gilat-Schmidt, **D. Ye**. "Enhancing Reproductive Organ Segmentation in Pediatric CT via Adversarial Learning." In: *Proceedings of the 2021 SPIE International Conference on Medical Imaging (SPIE MI 2021)*, February 14–18, 2021. **Oral Presentation**
- [3] N. Lang, D. Saxena, T. Yen, J. Jorns, B. Yu, **D. Ye**. "Breast Cancer Magnification-independent Multi-class Histopathology Classification using Dual-step Model." In: *Proceedings of the 2021 SPIE International Conference on Medical Imaging (SPIE MI 2021)*, February 14–18, 2021. **Honorable Mention Poster Award**
- [4] N. Aboobacker, G. Gonzalez, F. Zhang, J. Wanek, P. Xue, G. Rao, **D. Ye**. "Improving Presentation Consistency of Radiographic Images using Deep Learning." In: *Proceedings of the 2021 SPIE International Conference on Medical Imaging (SPIE MI 2021)*, February 14–18, 2021.

- [5] D. Helminiak, H. Hu, J. Laskin, **D. Ye**. "Deep Learning Approach for Dynamic Sparse Sampling in Mass Spectrometry Imaging." In: *Proceedings of the 2021 IS&T International Symposium on Electronic Imaging (EI 2021)*, January 18–22, 2021. **Oral Presentation**
- [6] D. Won, S. An, S. Park, **D. Ye**. "Low-Dose CT Denoising using Octave Convolution with High and Low Frequency Bands." In: *Proceedings of the 2020 International Workshop on PRedictive Intelligence In MEDicine (PRIME-MICCAI 2020)*, October 8, 2020.
- [7] K. Venkiteshwaran, N. Lang, **D. Ye**, D. Zitomer. "Predicting digester methane production using microbial community information: Can your biomass DNA data really be used to improve operations?" In: *Proceedings of the 2020 Water Environment Federation's Technical Exhibition and Conference (WEFTEC 2020)*, October 3–7, 2020. **Oral Presentation**
- [8] C. Kan, N. Aboobacker, **D. Ye**. "Age-Conditioned Synthesis of Pediatric Computed Tomography with Auxiliary Classifier Generative Adversarial Networks." In: *Proceedings of the 2020 IEEE International Symposium on Biomedical Imaging (ISBI 2020)*, April 3–7, 2020. **Oral Presentation**
- [9] T. Lu, J. Jorns, M. Patton, R. Fisher, A. Emmrich, T. Doehring, T. Gilat-Schmidt, **D. Ye**, T. Yen, B. Yu. "Deep UV fluorescence scanning microscopy for breast tumor margin detection." In: *Proceedings of the 2020 SPIE International Conference on Photonics West (SPIE Photonics West 2020)*, February 4–6, 2020.
- [10] B. Foster, **D. Ye**, C. Bouman. "Multi-target Tracking with an Event-based Vision Sensor and a Partial-update GMPHD Filter." In: *Proceedings of the 2019 IS&T International Symposium on Electronic Imaging (EI 2019)*, January 13–17, 2019. **Invited, Oral Presentation**
- [11] **D. Ye**, G. Buzzard, M. Ruby, C. Bouman. "Deep Back Projection for Sparse-View CT Reconstruction." In: *Proceedings of the 2018 IEEE Global Conference on Signal and Information Processing (GlobalSIP 2018)*, November 26–29, 2018. **Oral Presentation**
- [12] A. Ziabari, **D. Ye**, S. Srivastava, J-B. Thibault, K. Sauer, C. Bouman. "2.5D Deep Residual Learning for CT Image Denoising with Multi-GPU Implementation." In: *Proceedings of the 2018 Asilomar Conference on Signals, Systems, and Computers (Asilomar 2018)*, October 28–31, 2018.
- [13] A. Ziabari, **D. Ye**, S. Srivastava, K. Sauer, J-B. Thibault, L. Fu, C. Bouman. "Model Based Iterative Reconstruction With Spatially Adaptive Sinogram Weights for Wide-Cone Cardiac CT." In: *Proceedings of the 2018 International Conference on Image Formation in X-Ray Computed Tomography (CT Meeting 2018)*, May 20–23, 2018. **Oral Presentation**
- [14] **D. Ye**, S. Srivastava, J-B. Thibault, K. Sauer, C. Bouman. "Deep Residual Learning for Model-based Iterative CT Reconstruction using Plug-and-Play Framework." In: *Proceedings of the 2018 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP 2018)*, April 15–20, 2018. **Invited, Oral Presentation**
- [15] **D. Ye**, J. Li, Q. Chen, J. Wachs, C. Bouman. "Deep Learning for Moving Object Detection from a Single Camera in UAVs." In: *Proceedings of the 2018 IS&T International Symposium on Electronic Imaging (EI 2018)*, January 28–February 2, 2018. **Invited, Oral Presentation, Best Paper Award**
- [16] S. Zhang, Z. Song, D. Godaliyadda, **D. Ye**, A. Chowdhury, A. Sengupta, G. Buzzard, C. Bouman, G. Simpson. "A Supervised Learning Approach for Dynamic Sampling in

- Raman Hyperspectral Imaging." In: *Proceedings of the 2018 IS&T International Symposium on Electronic Imaging (EI 2018)*, January 28–February 2, 2018. **Oral Presentation**
- [17] S. Zhang, Z. Song, D. Godaliyadda, **D. Ye**, A. Sengupta, G. Buzzard, C. Bouman, G. Simpson. "Dynamic Sampling for Raman Imaging." In: *Proceedings of the 2018 SPIE International Conference on Photonics West (SPIE Photonics West 2018)*, January 27–February 1, 2018. **Oral Presentation**
- [18] **D. Ye**, S. Srivastava, J-B. Thibault, K. Sauer, C. Bouman. "ROI Reconstruction for Model Based Iterative Reconstruction (MBIR) via a Coupled Dictionary Learning." In: *Proceedings of the 2017 SPIE International Conference on Medical Imaging (SPIE MI 2017)*, February 11–16, 2017.
- [19] S. Majee, **D. Ye**, G. Buzzard, C. Bouman. "A Model Based Neuron Detection Approach Using Sparse Location Priors." In: *Proceedings of the 2017 IS&T International Symposium on Electronic Imaging (EI 2017)*, January 29–February 2, 2017. **Oral Presentation**
- [20] N. Scarborough, D. Godaliyadda, **D. Ye**, D. Kissick, S. Zhang, J. Newman, M. Sheedlo, A. Chowdhury, R. Fischetti, C. Das, G. Buzzard, C. Bouman, G. Simpson. "Synchrotron X-Ray Diffraction Dynamic Sampling for Protein Crystal Centering." In: *Proceedings of the 2017 IS&T International Symposium on Electronic Imaging (EI 2017)*, January 29–February 2, 2017. **Oral Presentation**
- [21] J. Li, **D. Ye**, T. Chung, M. Kolsch, J. Wachs, C. Bouman. "Multi-Target Detection and Tracking from a Single Camera in Unmanned Aerial Vehicles (UAVs)." In: *Proceedings of the 2016 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS 2016)*, October 9–14, 2016. **Oral Presentation**
- [22] D. Godaliyadda, **D. Ye**, M. Uchic, M. Groeber, M. Jackson, G. Buzzard, C. Bouman. "A Supervised Learning Approach for Dynamic Image Sampling." In: *Proceedings of the 2016 IS&T International Symposium on Electronic Imaging (EI 2016)*, February 14–18, 2016. **Oral Presentation**
- [23] P. Jin, **D. Ye**, C. Bouman. "Joint Metal Artifact Reduction and Segmentation of CT Images Using Dictionary-Based Image Prior and Continuous-Relaxed Potts Model." In: *Proceedings of the 2015 IEEE International Conference on Image Processing (ICIP 2015)*, September 27–30, 2015. **Oral Presentation, Runner-up Award for Best Paper**
- [24] **D. Ye**, S. Srivastava, D. Pal, J-B. Thibault, K. Sauer, C. Bouman. "Initial Condition for Fast Model-Based Iterative Reconstruction of Truncated Projection Data." In: *Proceedings of the 2015 Fully Three-Dimensional Image Reconstruction in Radiology and Nuclear Medicine (Fully3D 2015)*, May 31–June 4, 2015.
- [25] **D. Ye**, B. Desjardins, V. Ferrari, D. Metaxas, K. Pohl. "Auto-Encoding of Discriminating Morphometry From Cardiac MRI." In: *Proceedings of the 2014 IEEE International Symposium on Biomedical Imaging (ISBI 2014)*, April 29–May 2, 2014. **Oral Presentation**
- [26] **D. Ye**, D. Zikic, B. Glocker, A. Criminisi, E. Konukoglu. "Modality Propagation: Coherent Synthesis of Patient-specific Scans with Data-driven Regularization." In: *Proceedings of the 2013 International Conference on Medical Image Computing and Computer Assisted Intervention (MICCAI 2013)*, September 22–26, 2013.
- [27] **D. Ye**, J. Hamm, B. Desjardins, K. Pohl. "FLOOR: Fusing Locally Optimal Registrations." In: *Proceedings of the 2013 International Conference on Medical Image Computing and Computer Assisted Intervention (MICCAI 2013)*, September 22–26, 2013.

- [28] D. Zikic, B. Glocker, E. Konukoglu, J. Shotton, A. Criminisi, **D. Ye**, C. Demiralp, O. Thomas, T. Das, R. Jena, S. J. Price. "Context-Sensitive Classification Forests for Segmentation of Brain Tumor Tissues." In: *Proceedings of the 2012 Multimodal Brain Tumor Segmentation Challenge (BRATS 2012)*, October 1, 2012.
- [29] **D. Ye**, J. Hamm, D. Kwon, C. Davatzikos, K. Pohl. "Regional Manifold Learning for Deformable Registration of Brain MR Images." In: *Proceedings of the 2012 International Conference on Medical Image Computing and Computer Assisted Intervention (MICCAI 2012)*, October 1–5, 2012.
- [30] Y. Ou, **D. Ye**, K. Pohl, C. Davatzikos. "Validation of DRAMMS among 12 Popular Methods in Cross-Subject Cardiac MRI Registration." In: *Proceedings of the 2012 International Workshop on Biomedical Image Registration (WBIR 2012)*, July 7–8, 2012. **Oral Presentation**
- [31] **D. Ye**, J. Hamm, K. Pohl. "Combining Regional Metrics for Disease-Related Brain Population Analysis." In: *Proceedings of the 2012 IEEE International Symposium on Biomedical Imaging (ISBI 2012)*, May 2–5, 2012. **Student Travel Award**
- [32] **D. Ye**, H. Litt, C. Davatzikos, K. Pohl. "Morphological Classification: Application to Cardiac MRI of Tetralogy of Fallot." In: *Proceedings of the 2011 International Conference on Functional Imaging and Modeling of the Heart (FIMH 2011)*, May 25–27, 2011. **Oral Presentation**
- [33] **D. Ye**, K. Pohl, C. Davatzikos. "Semi-Supervised Pattern Classification: Application to Structural MRI of Alzheimer's Disease." In: *Proceedings of the 2011 International Workshop on Pattern Recognition in NeuroImaging (PRNI 2011)*, May 16–18, 2011. **Oral Presentation, Student Travel Award**
- [34] N. Batmanghelich, **D. Ye**, K. Pohl, B. Taskar, C. Davatzikos. "Disease Classification and Prediction via Semi-supervised Dimensionality Reduction." In: *Proceedings of the 2011 IEEE International Symposium on Biomedical Imaging (ISBI 2011)*, March 30–April 2, 2011. **Oral Presentation, Top 10 Student Paper**
- [35] **D. Ye**, K. Pohl, H. Litt, C. Davatzikos. "Groupwise Morphometric Analysis Based on High Dimensional Clustering." In: *Proceedings of the 2010 IEEE Computer Society Workshop on Mathematical Methods in Biomedical Image Analysis (MMBIA 2010)*, June 14, 2010.
- [36] **D. Ye**, D. Kwon, I. Yun, S. Lee. "Fast Multi-Scale Vessel Enhancement Filtering." In: *Proceedings of the 2008 SPIE International Conference on Medical Imaging (SPIE MI 2008)*, February 16–21, 2008.

PATENTS

Filed

- [1] J-B. Thibault, S. Srivastava, J. Hsieh, C. Bouman, **D. Ye**, K. Sauer. "Image Generation using Machine Learning." *US15/730543* (Licensed to General Electric Company)
- [2] F. Lin, J-B. Thibault, S. Srivastava, C. Bouman, **D. Ye**, A. Ziabari, K. Sauer. "Tomographic Reconstruction with Weights." *US15/840953* (Licensed to General Electric Company)

COURSES TAUGHT

Marquette University - Instructor

Courses marked with underline denote newly developed course

- COEN 4890/ EECE 5890: Machine Learning for Image Processing: 2018 F, 2019 F, 2020 F
- COEN 4690/ EECE 5690: Deep Learning Software for Computer Vision: 2020 S
- ELEN 3020: Linear System Analysis: 2019 F, 2020 F

STUDENTS
ADVISING

Primary Adviser - Marquette

- David Helminiak (PhD, 2019–)
- Saba Heidari Gheshlaghi (PhD, 2020–)
- Tyrell To (5 year BS/MS, 2021–)
- Najib Akram Maheen Aboobacker (MS Graduated, 2019–2021)
- Chi Nok Enoch Kan (MS Graduated, 2019–2020)

Primary Adviser - Purdue

- Ang Wee Kiong (MS Graduated, 2017–2018)

Thesis Committee Member - Marquette

- Tongtong Lu (PhD in Bioengineering, 2017–, Primary adviser: Bing Yu)
- Philipe Ambrozio Dias (PhD, 2016–2020, Primary adviser: Henry Medeiros)
- Taiwo Fasae (MS, 2019–2020, Primary adviser: Richard Povinelli)

Thesis Committee Member - Purdue

- Jing Li (PhD, 2015–2019, Primary adviser: Charles Bouman)

Undergraduate Research Assistants

- Tyrell To (SURF), 2021 –
- Thomas Florian (SURF), 2020 –
- Nathan Lang, 2020
- John Hattas (SURF), 2019

Korean Visiting Student

- Su Min Baek (PhD at DGIST, 2020, Primary adviser: Ok Kyun Lee)
- Jeong Hyeon Nam (MS at DGIST, 2020, Primary adviser: Ok Kyun Lee)
- Dong Kyu Won (PhD at DGIST, 2019, Primary adviser: Sang Hyun Park)
- Jung Hwan Kim (MS at DGIST, 2019, Primary adviser: Sang Hyun Park)

Senior Design Project Advisor

- Bryan Andersen, Alex Berkhout, Emmett Gainer, Mark Ward, "Augmented Reality for Physical Therapy," 2020 – 2021
- Nathan Keyes, Griffin Berschauer, Patrick Powell, Tom Panozzo, Patrick Woodford, "Augmented Reality for Physical Therapy," 2019 – 2020

ACADEMIC/
PROFESSIONAL
SERVICE

Committee Service, Marquette University

- College of Engineering Technology Advisory Committee 2019-present
- EECE Graduate Committee 2020-present
- EECE Undergraduate Committee 2019-2020
- EECE Faculty Hiring Committee 2019
- EECE Faculty Award Committee 2018
- EECE Undergraduate student advising 2020-

Reviewer for Journals

- *IEEE Transactions on Computational Imaging*
- *IEEE Transactions on Medical Imaging*
- *IEEE Transactions on Image Processing*
- *IEEE Transactions on Emerging Topics in Computing*
- *International Journal of Computer Vision*
- *Journal of Biomedical and Health Informatics*
- *Journal of Electronic Imaging*
- *Optics Express*
- *Sensors*

Reviewer for Conferences

- *International Conference on Medical Image Computing and Computer Assisted Intervention (MICCAI)*

Technical/ Program Committee

- *Technical Committee: IEEE Signal Processing Society - Computational Imaging*
- *Program Committee: Predictive Intelligence in Medicine Workshop*
- *Session Chair: IS&T International Symposium on Electronic Imaging*