THI HOANG NGAN LE

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BIOGRAPHICAL SKETCH

Dr. Le is currently an Associate Professor and Director of the Artificial Intelligence & Computer Vision AICV Lab in the Department of Electrical Engineering & Computer Science (EECS) at the University of Arkansas. Previously, she held a Postdoctoral position at Carnegie Mellon University (CMU). Dr. Le obtained her Ph.D. and Master's degrees in Electrical & Computer Engineering from CMU in 2018 and 2015, respectively. She earned her Master's and Bachelor's degrees in Computer Science from Vietnam, in 2009 and 2005, respectively.

Dr. Le is a recipient of the prestigious NSF CAREER Award. She is internationally recognized for her significant contributions in Robotics, Machine Learning, Computer Vision, and Medical Analysis. She is a recipient of the NSF CAREER. Her research addresses diverse real-world challenges, including trusted decision-making, imperfect data (limited labeled data, noisy data, biased data, unseen data, small objects) and real-time applications on edge devices. Proficient across multiple modalities, she excels in working with image, video, point cloud, volumetric data, time series, and remote sensing data. Notably, her expertise spans image processing, scene understanding, multiple object tracking, behavior analysis, medical image analysis, 3D reconstruction, and real-time robotics perception. Dr. Le's work is considered state-of-the-art, with many of her research endeavors successfully deployed in real-world applications, including cutting-edge implementations on edge devices. Her research portfolio includes ownership of eight patents and co-authorship of over 150 papers and articles across various prestigious conferences, book chapters, and top-tier journals.

Dr. Le has been an Associate Editor for ScienceDirect's Machine Learning with Applications (MLWA) journal since 2021. She has chaired prominent conferences including Asilomar, MICAD, SOICT, IJCAI, AAAI since 2022. Dr. Le has organized tutorials and workshops at prestigious conferences such as MICCAI and ACCV. For examples, the Tutorial on Deep Reinforcement Learning for Medical Imaging at MICCAI 2018, the Workshop on Medical Image Learning with Less Labels and Imperfect Data at MICCAI 2019, the Workshop on Interpretable and Annotation-Efficient Learning for Medical Image Computing at MICCAI 2020, Robust, Trustworthy and Cost-Optimized Learning Across Multiple Modalities: Theory, Algorithms, and Applications at ACCV 2024, Emerging LLM/LMM technologies in medicine and healthcare at MICCAI 2025.

Dr. Le is actively engaged in networking events, notably organizing Women in MICCAI from 2019 to 2022, and Women in Computer Vision at ACCV 2024. She has also served as the lead instructor for the Google NACME Applied Machine Learning Intensive (AMLI) Summer Bootcamp in 2021 and 2022. Furthermore, Dr. Le has contributed as a for NSF panel since 2022 and has reviewed for numerous conferences and journals since 2018.

APPOINTMENTS

Associate Professor Aug. 2025 - present

Department of Electrical Engineering and Computer Science, University of Arkansas.

Assistant Professor Aug. 2019 - Aug.2025

Department of Electrical Engineering and Computer Science, University of Arkansas.

Postdoctoral Jul. 2018 - Aug. 2019

Department of Electrical and Computer Engineering, Carnegie Mellon University.

EDUCATION

Ph.D., Electrical and Computer Engineering 2015 - 2018
Carnegie Mellon University

- Title: Contextual Recurrent Level Set Networks and Recurrent Residual Networks for Semantic Labeling.
- Thesis committees:
  - Prof. Marios Savvides, Carnegie Mellon University, Pennsylvania, USA (Chair).
  - Prof. Vijayakumar Bhagavatula, Carnegie Mellon University, Pennsylvania, USA.
  - Prof. Arun A. Ross, Michigan State University, Michigan, USA.
  - Dr. Saad J. Bedros, University of Minnesota, Minnesota, USA.

M.S., Electrical and Computer Engineering 2011 - 2015
Carnegie Mellon University

- Title: "SparCLeS: Dynamic $l_1$1 Sparse Classifiers with Level Sets for Robust Beard/Moustache Detection and Segmentation".
- Thesis committees:
  - Prof. Marios Savvides, Carnegie Mellon University, Pennsylvania, USA (Chair).
  - Prof. Vijayakumar Bhagavatula, Carnegie Mellon University, Pittsburgh, USA.
  - Prof. John M. Dolan, Carnegie Mellon University, Pittsburgh, USA.

M.S., Computer Science 2006 - 2009
University of Science.

- Title: Secret Sharing Using Multiple Shadow Images.
- Thesis committees:
  - Prof. Hoai Bac Le, University of Science, Vietnam (Chair).
  - Prof. Chin-Chen Chang, Feng Chia University, Taiwan (Chair).
  - Prof. Anh-Duc Duong, University of Science, Vietnam.
  - Associate Prof. Quoc-Ngoc Ly, University of Science, , Vietnam.
  - Associate Prof. Son Dang, University of Technology and Education, Vietnam.

B.S., Computer Science 2001 - 2005
University of Science.

- Title: Data Hiding in Digital Audio.

- Thesis committees:
  - Prof. Hoai Bac Le, University of Science, Vietnam (Chair).
  - Prof. Anh-Duc Duong, University of Science, Vietnam.
  - Dr. Tien Len Nguyen, University of Science, Vietnam.

STUDENT AWARDS & HONORS

- Thang Pham, Outstanding Paper Award, ACM Multimedia 2025.
- Ethan Coffman, Student Undergraduate Research Fellowship (SURF), 2024.
- Anh Tran, Student Undergraduate Research Fellowship (SURF), 2024.
- Winston Bounsavy, Honors College Research Award, 2024.
- Johnmark Clements, Honors College Research Award, 2024.
- Malachi Massey, Honors College Research Award, 2024.
- Taisei Hanyu, Honors College Research Award, 2025.
- Bryan Williams, Honors College Research Award, 2024.
- Jackson Frederick Bumgarner, Office of Undergraduate Research award, 2024.
- Khoa Vo, Winning the 2023 Best Paper Award, Brain Sciences, 2024.
- Thinh Phan, College of Engineering Graduate Fellowships, 2024.
- Thinh Phan, Earl H. Beling Doctoral Fellowship, 2024.
- Khoa Vo, Margaret Gerig Martin Graduate Fellowship, 2024.
- Khoa Vo, College of Engineering Graduate Fellowships, 2024.
- Duy Le, Reginald R. 'Barney' & Jameson A. Baxter Graduate, 2024
- Duy Le, College of Engineering Graduate Fellowships, 2024
- Minh Tran, Larry and Gwen Stephens Graduate Fellowship, 2024
- Minh Tran, College of Engineering Graduate Fellowships, 2024
- Kashu Yamayaki, Winning the 2023 Best Paper Award, Brain Sciences, 2024.
- Taisei Hanyu, Honors Research Travel Grant, 2024.
- Khoa Vo, Registration Award to CVPR 2024.
- Thinh Phan, Registration Award to CVPR 2024.
- Vuong Ho, Registration Award to CVPR 2024.
- Minh Tran, Registration Award to CVPR 2024.
- Minh Tran, Travel Award to SGSMA 2024.

- Adrian Luis, Travel Award to SGSMA 2024.
- Anh Tran, Student Undergraduate Research Fellowship (SURF) 2024.
- Taisei Hanyu, Honors College Research Grants 2024.
- Kashu Yamazaki, Travel Award to AAAI 2023.
- Thinh Phan, Thomas Endowed Doctoral Fellowship, 2023
- Minh Tran, Thomas Endowed Doctoral Fellowship, 2023.
- Sang Truong, Thomas Endowed Doctoral Fellowship, 2023.
- Sang Truong, Reginald R. "Barney" & Jameson A. Baxter Graduate Fellowship, 2023.
- Khoa Vo, Thomas Endowed Doctoral Fellowship, 2023.
- Winston Bounsavy, Research Experiences for Undergraduates (REU), AI SUSTEIN 2023.
- Michael Ofodile, Research Experiences for Undergraduates (REU), AI SUSTEIN 2023.
- Jacob Brecheisen, Research Experiences for Undergraduates (REU), AI SUSTEIN 2023.
- Rohit Kala, Honors College Research Grants 2023.
- Chiyou Vang, Honors College Research Grants 2023.
- Kashu Yamazaki, Reginald R. "Barney" & Jameson A. Baxter Graduate, 2022.
- Kashu Yamazaki, the 21st Century Research Leadership Chair, 2022.
- Khoa Vo, W.R. Thomas Endowed Graduate Fellowship, 2022.
- Minh Tran, W.R. Thomas Endowed Graduate Fellowship, 2022.
- Sang Truong, Reginald R. "Barney" & Jameson A. Baxter Graduate Fellowship, 2022.
- Sang Truong, College of Engineering Graduate Fellowships, 2022
- Minh Tran, Rodger S. Kline Endowed Chair, 2022.
- Sang Truong, Rodger S. Kline Endowed Chair, 2022.
- Khoa Vo, Rodger S. Kline Endowed Chair, 2022.
- Taisei Hanyu, NSF DART Summer Undergraduate Research Experiences (SURE), 2022.
- Thang Pham, Doctoral Academy Fellowship DAF, 2022.
- Duc Le, Doctoral Academy Fellowship DAF, 2021.

ACADEMIC AWARDS

- NSF CAREER, 2025.
- Dean's Award of Excellence Collaborative Faculty Research Award, 2024 - 2025.
- Dean's Excellence Rising Star Faculty Research Award, 2023 - 2024.
- Dean's Excellence Teaching Award, 2022 - 2023 (nominated).
- Winning the 2023 Best Paper Award, Brain Sciences, 2023 - 2024.
- Best Paper Finalist, IROS, Detroit, Oct. 2023.
- The Best Instructor, Google Applied Machine Learning Bootcamp, Summer 2022.
- The Best Instructor, Google Applied Machine Learning Bootcamp, Summer 2021.
- Editor's Choice Articles, Brain Sciences, 2021.
- Top 1^{st} ranking in the Vision for Intelligent Vehicles and Applications (VIVA) Challenge 2017, 2018, 2019.
- NIH Travel Award, MICCAI, Spain, Sep. 2018.
- PhD Scholarship, Carnegie Mellon University, U.S., Sep. 2011 - May. 2018.
- Fellowship Award, Concordia University, Canada, May. 2010 - Sep. 2011.
- Best Paper Award, International Symposium on Electronic Commerce and Security, 2008.
- Vietnamese Government Scholarship for Graduate Students, 2008-2010.
- Second Prize, Vietnamese Talents Competition, 2007.
- First Prize, "Light the Hope" Award by the Vietnamese Government for assisting disabled individuals, 2007.
- First Prize, Nationwide Student's Research Competition, 2005.
- First Prize, VIFOTEC (Vietnam Fund for Supporting Technology), 2005.
- Scholarship, Tuong Minh Company, 2004.

PUBLICATIONS

Dr. Le's Google Scholar profile (8ck0k_UAAAAJ) with *5,141 citations*, an h-index of 35, and an i10-index of 98. Her research comprises ***over 150 peer-reviewed publications***, including ***40+ articles in top-tier journals*** such as International Journal of Computer Vision IJCV (IF = 19.5), IEEE Transactions on Image Processing TIP (IF = 10.6), IEEE Journal of Biomedical and Health Informatics JBHI (IF = 7.7), Medical Image Analysis MIA (IF = 10.9), Pattern Recognition PR (IF = 8.518), and Artificial Intelligence Review AIRE (IF = 12.0), along with 100+ double-blind publications presented at prestigious conferences e.g., AAAI Conference on Artificial Intelligence, IEEE/CVF Computer Vision and Pattern Recognition CVPR, the International Conference on

Computer Vision ICCV, the International Conference on Acoustics, Speech, and Signal Processing ICASSP, the Neural Information Processing Systems NeurIPS, the International Conference on Medical Image Computing and Computer Assisted Intervention MICCAI, IEEE/CVF Winter Conference on Applications of Computer Vision WACV, IEEE/RSJ International Conference on Intelligent Robots and Systems IROS, International Conference on Robotics and Automation ICRA, Association for Computational Linguistics ACL, etc.

Patents

1. Hoang Nguyen, Nam Nguyen, **Ngan Le**, Mina Sartipi, "iCitySentinel – Human-Interactive Multi-Camera Tracking for Smart Cities.", 2025.
2. Meredith M Adkins, Chase Rainwater, **Ngan Le**, Kristen E Gibson "Data-driven Agriculture to Bridge Small Farms to Regional Food Supply Chains", 2024.
3. Hoang Nguyen, Tuan Nguyen, **Ngan Le**, Mina Sartipi, "MACA: Large Language Multi-Agents Model for User-Interactive Multi-Target Multi-Camera Tracking", 2025.
4. **Ngan Le**, Thinh Phan, Marta Rodriguez, Michael Kidd, "Hands-free chick sexing" (licensing), 2025.
5. **Ngan Le**, Thinh Phan, Minh Tran, Michael Kidd, "Integrating Multi-Camera and RFID Systems for Precise Tracking and Monitoring of Chicken Behavior and Welfare" (licensed), 2025.
6. **Ngan Le**, Michael Kidd, "Systems and processes for detection, segmentation, and classification of poultry carcass parts and defects." U.S. Patent Application 18/689,373, filed January 2, 2025.
7. **Ngan Le**, Michael Kidd, Khoa Vo, Artificial intelligence and vision-based broiler body weight measurement system and process. U.S. Patent Application 18/685,805 (licensing).
8. **Ngan Le**, Marios Savvides, Boyiadzis Michael, Contis Lydia, Methods and Systems for Disease Classification, EP0628822B1, 2019.

Journal Articles

IF: Impact Factor.[1].
Q: Quartile[2].

Q1 - a journal's impact factor must be in the highest quartile (the top 25%) among journals publishing in the same field of science.

Q2: a journal's impact factor must be in the upper half (the top 50%) of journals publishing in the same field of science.

1. Thang Pham, Jeremy G. Powell Ethan Coffman, Beth Kegley, **Ngan Le**, "CattleFever: An Automated Cattle Fever Estimation System", Smart Agricultural Technology, Volume 12, December 2025, 101434, **(IF = 5.7)**, **Q1**.

[1] https://en.wikipedia.org/wiki/Impact_factor
[2] https://www.scimagojr.com/

2. Anh Tran, Minh Tran, Esteban Marti, Jackson Cothren, Chase Rainwater, Sandra Eksioglu, **Ngan Le**, "Land8Fire: A Complete Study on Wildfire Segmentation Through Comprehensive Review, Human-Annotated Multispectral Dataset, and Extensive Benchmarking", Remote Sens. 2025, 17(16), 2776 **(IF = 4.2)**, **Q1**.

3. Thinh Phan, Hoang Kim Tran, Andrew Lockett, Isaac Phillips, Hao Vo, Duy Le, Michael T Kidd, James Mason, Santiago Avendano, **Ngan Le**, "BroilerTrack: Automatic Multi-Camera Multi-Broiler Tracking", Smart Agricultural Technology, Volume 12, December 2025, 101312, **(IF = 5.7)**, **Q1**.

4. Tran, Minh, Adrian De Luis, Haitao Liao, Ying Huang, Roy McCann, Alan Mantooth, Jack Cothren, and **Ngan Le**. "S3Former: A Deep Learning Approach to High Resolution Solar PV Profiling." IEEE Transactions on Smart Grid (2025), **(IF = 9.8)**, **Q1**.

5. Awasthi, Akash, **Ngan Le**, Zhigang Deng, Carol C. Wu, and Hien Van Nguyen. "Collaborative Integration of AI and Human Expertise to Improve Detection of Chest Radiograph Abnormalities." Radiology: Artificial Intelligence 7, no. 5 (2025): e240277, **(IF = 13.2)**, **Q1**.

6. Pham, Trong Thang, Ethan Coffman, Beth Kegley, Jeremy G. Powell, Jiangchao Zhao, and **Ngan Le**. "CattleFever: An Automated Cattle Fever Estimation System." Smart Agricultural Technology (2025): 101434, **(IF = 5.7)**, **Q1**.

7. Phan, Thinh, Hoang Kim Tran, Andrew Lockett, Isaac Phillips, Hao Vo, Duy Le, Michael T. Kidd, James Mason, Santiago Avendano, and **Ngan Le**. "BroilerTrack: Automatic Multi-Camera Multi-Broiler Tracking." Smart Agricultural Technology (2025): 101312, **(IF = 5.7)**, **Q1**.

8. Tran, Anh, Minh Tran, Esteban Marti, Jackson Cothren, Chase Rainwater, Sandra Eksioglu, and **Ngan Le**. "Land8Fire: A Complete Study on Wildfire Segmentation Through Comprehensive Review, Human-Annotated Multispectral Dataset, and Extensive Benchmarking." Remote Sensing 17, no. 16 (2025): 2776, **(IF = 4.1)**, **Q1**.

9. Duran, Esteban, Minh Tran, Malachi Massey, Adrian Gracia, Taisei Hanyu, Anh Tran, Roy McCann, and **Ngan Le**. "SolarFormer++: Multi-scale Transformer for Solar PV Profiling and Obstruction Localization for Degradation Mitigation." IEEE Transactions on Industry Applications (2025), **(IF = 4.5)**, **Q1**.

10. Rodriguez, Marta Veganzones, Thinh Phan, Arthur FA Fernandes, Vivian Breen, Jesus Arango, Michael T. Kidd, and **Ngan Le**. "Facial Chick Sexing: An Automated Chick Sexing System From Chick Facial Image." Smart Agricultural Technology (2025): 101044, **(IF = 5.7)**,**Q1**.

11. Minh Tran, Thang Pham, Winston Bounsavy, Tri Nguyen, and **Ngan Le**. "A2VIS: Amodal-Aware Approach to Video Instance Segmentation." Image and Vision Computing (2025): 105543, **(IF = 4.1)**, **Q1**.

12. Esteban Marti, Minh Tran, Malachi Massey, Taisei Hanyu, Anh Tran, Adrian De Luis, Haitao Liao, Ying Huang, Roy McCann, Alan Mantooth, Jack Cothren, and **Ngan Le**. "SolarFormer++: Multi-scale Transformer for Solar PV Profiling and Obstruction Localization for Degradation Mitigation." IEEE Transactions on Industrial Applications(2025), **Q1**.

13. Awasthi, Akash, Anh Mai Vu, **Ngan Le**, Zhigang Deng, Supratik Maulik, Rishi Agrawal, Carol C. Wu, and Hien Van Nguyen. "Modeling radiologists' cognitive processes using a digital gaze twin to enhance radiology training." Scientific Reports 15, no. 1 (2025): 13685, **Q1**.

14. Tran, Minh, Adrian De Luis, Haitao Liao, Ying Huang, Roy McCann, Alan Mantooth, Jack Cothren, and **Ngan Le** "S3Former: Self-supervised High-resolution Transformer for Solar PV Profiling." IEEE Transactions on Smart Grid 2025 (**IF = 8.6**), **Q1**.

15. Thang Pham, Jacob Brecheisen, Carol C. Wu, Hien Nguyen, Zhigang Deng, Donald Adjeroh, Gianfranco Doretto, Arabinda Choudhary, **Ngan Le**, "ItpCtrl-AI: End-to-End Interpretable and Controllable Artificial Intelligence by Modeling Radiologists' Intentions.", Artificial Intelligence In Medicine 2024 (**IF = 6.1**), **Q1**.

16. Le, Quang-Hung, Brijesh Patel, Donald Adjeroh, Gianfranco Doretto, and **Ngan Le**. "SSL-SurvFormer: A Self-Supervised Learning and Continuously Monotonic Transformer Network for Missing Values in Survival Analysis." In Informatics, vol. 12, no. 1, p. 32. MDPI, 2025, **Q2**.

17. Awasthi, Akash, **Ngan Le**, Zhigang Deng, Rishi Agrawal, Carol C. Wu, and Hien Van Nguyen. "Bridging Human and Machine Intelligence: Reverse-Engineering Radiologist Intentions for Clinical Trust and Adoption." Computational and Structural Biotechnology Journal (2024) (**IF = 4.5**), **Q1**.

18. Taisei Hanyu, Yamazaki, Kashu, Minh Tran, Adrian Garcia, Anh Tran, Roy McCann, Haitao Liao, and **Ngan Le** "AerialFormer: Multi-resolution Transformer for Aerial Image Segmentation.", Remote Sensing 2024, 16(16), p.2930 (**IF = 4.2**), **Q1**.

19. Tran, Minh, Sang Truong, Arthur FA Fernandes, Michael T. Kidd, and **Ngan Le**. "CarcassFormer: An End-to-end Transformer-based Framework for Simultaneous Localization, Segmentation and Classification of Poultry Carcass Defect." Poultry Science (2024): 103765.(**IF = 4.4**), **Q1**.

20. Christy L Dunlap, Changgen Li, Hari Pandey, Ngan Le, Han Hu, "BubbleID: A Deep Learning Framework for Bubble Interface Dynamics Analysis", Journal of Applied Physics, Vol. 136, 014902 (2024) (IF = 2.7), **Q1**.

21. Chappa, Naga Venkata Sai Raviteja, Pha Nguyen, **Ngan Le**, Page Daniel Dobbs, and Khoa Luu. " HAtt-Flow: Hierarchical Attention-Flow Mechanism for Group-Activity Scene Graph Generation in Videos." Sensors 24, no. 11 (2024): 3372. (IF = 3.9), Q2.

22. Pha Nguyen, Kha Gia Quach, Chi Nhan Duong, Son Lam Phung, **Ngan Le**, and Khoa Luu. "Multi-camera multi-object tracking on the move via single-stage global association approach." Pattern Recognition 152 (2024): 110457.(**IF = 8.518**), **Q1**.

23. Khoa Vo, Sang Truong, Kashu Yamazaki, Bhiksha Raj, Minh-Triet Tran, and **Ngan Le**. "Aoe-net: Entities interactions modeling with adaptive attention mechanism for temporal action proposals generation." International Journal of Computer Vision 131, no. 1 (2023): 302-323.(**IF = 19.5**), **Q1**.

24. Duc Le, Sang Truong, Patel Brijesh, Donald A. Adjeroh, and **Ngan Le**. "scl-st: Supervised contrastive learning with semantic transformations for multiple lead ecg arrhythmia classification." IEEE journal of biomedical and health informatics 27, no. 6 (2023): 2818-2828.(**IF = 7.7**), **Q1**.

25. Thanh-Dat Truong, Chi Nhan Duong, Kha Gia Quach, **Ngan Le**, Tien D. Bui, and Khoa Luu. "LIAAD: Lightweight attentive angular distillation for large-scale age-invariant face recognition." Neurocomputing 543 (2023): 126198.(**IF = 6.0**), **Q1**.

26. Kha Gia Quach, **Ngan Le**, Chi Nhan Duong, Ibsa Jalata, Kaushik Roy, and Khoa Luu. "Non-volume preserving-based fusion to group-level emotion recognition on crowd videos." Pattern Recognition 128 (2022): 108646. (**IF = 8.518**), **Q1**.

27. **Ngan Le**, Vidhiwar Singh Rathour, Kashu Yamazaki, Khoa Luu, and Marios Savvides. "Deep reinforcement learning in computer vision: a comprehensive survey." Artificial Intelligence Review (2022): 1-87. (**IF = 12.0**) , **Q1**.

28. Kashu Yamazaki, Viet-Khoa Vo-Ho, Darshan Bulsara, and **Ngan Le**. "Spiking neural networks and their applications: A review." Brain Sciences 12, no. 7 (2022): 863. **(Editor's Choice in 2021), (Winning the 2023 Best Paper Award)** (IF = 2.7), Q2.

29. Khoa Vo, Kashu Yamazaki, Sang Truong, Minh-Triet Tran, Akihiro Sugimoto, and **Ngan Le**. "Abn: Agent-aware boundary networks for temporal action proposal generation." IEEE Access 9 (2021): 126431-126445. (IF = 3.9), **Q1**.

30. Duc-Quang Vu, **Ngan Le**, and Jia-Ching Wang. "Teaching yourself: A self-knowledge distillation approach to action recognition." IEEE Access 9 (2021): 105711-105723. (IF = 3.9), **Q1**.

31. **Ngan Le**, Toan Bui, Viet-Khoa Vo-Ho, Kashu Yamazaki, and Khoa Luu. "Narrow band active contour attention model for medical segmentation." Diagnostics 11, no. 8 (2021): 1393. (IF = 3.6), Q2.

32. S. Kevin Zhou, Hoang Ngan Le, Khoa Luu, Hien V. Nguyen, and Nicholas Ayache. "Deep reinforcement learning in medical imaging: A literature review." Medical image analysis 73 (2021): 102193. (**IF = 10.9**), **Q1**.

33. Truong, Thanh-Dat, Chi Nhan Duong, Minh-Triet Tran, **Ngan Le**, and Khoa Luu. "Fast flow reconstruction via robust invertible n× n convolution." Future Internet 13, no. 7 (2021): 179. (IF = 3.4), Q2.

34. **Ngan Le,** J.Sorensen, T.Bui, A.Choudhary, K.Luu, H.Nguyen, "Enhance Portable Radiograph for Fast and High Accurate Covid-19 Monitoring", Diagnostics, 2021. (IF = 3.6), Q2.

35. Duong, Chi Nhan, Kha Gia Quach, Khoa Luu, **Ngan Le**, Marios Savvides, and Tien D. Bui. "Learning from longitudinal face demonstration—where tractable deep modeling meets inverse reinforcement learning." International Journal of Computer Vision 127 (2019): 957-971. (**IF = 19.5**), **Q1**.

36. **Ngan Le**, Kha Gia Quach, Khoa Luu, Chi Nhan Duong, and Marios Savvides. "Reformulating level sets as deep recurrent neural network approach to semantic segmentation." IEEE Transactions on Image Processing 27, no. 5 (2018): 2393-2407. (**IF = 10.6**), **Q1**.

37. **Ngan Le**, Chi Nhan Duong, Ligong Han, Khoa Luu, Kha Gia Quach, and Marios Savvides. "Deep contextual recurrent residual networks for scene labeling." Pattern Recognition 80 (2018): 32-41. (**IF = 8.518**), **Q1**.

38. **Ngan Le**, Khoa Luu, Chenchen Zhu, and Marios Savvides. "Semi self-training beard/moustache detection and segmentation simultaneously." Image and Vision Computing 58 (2017): 214-223. (**IF = 4.7**), Q2.

39. **Ngan Le**, ChenChen Zhu, Yutong Zheng, Khoa Luu, and Marios Savvides. "DeepSafeDrive: A grammar-aware driver parsing approach to Driver Behavioral Situational Awareness (DB-SAW)." Pattern Recognition 66 (2017): 229-238. (**IF = 8.518**), **Q1**.

40. **Ngan Le** and Marios Savvides. "A novel shape constrained feature-based active contour model for lips/mouth segmentation in the wild." Pattern Recognition 54 (2016): 23-33. (**IF = 8.518**), **Q1**.

41. **Ngan Le**, Keshav Seshadri, Khoa Luu, and Marios Savvides. "Facial aging and asymmetry decomposition based approaches to identification of twins." Pattern Recognition 48, no. 12 (2015): 3843-3856. (**IF = 8.518**), **Q1**.

42. **Ngan Le**, Khoa Luu, and Marios Savvides. "SparCLeS: Dynamic ℓ_1 Sparse Classifiers With Level Sets for Robust Beard/Moustache Detection and Segmentation." IEEE Transactions on Image Processing 22, no. 8 (2013): 3097-3107. (**IF = 10.6**), **Q1**.

43. CC.Chang, JS.Lee, **Ngan Le**, "Hybrid wet paper coding mechanism for steganography employing n-indicator and fuzzy edge detector", Digital Signal Processing, 20(4), pp.1286-1307, 2010. (IF = 2.9), Q2.

44. **Ngan Le**, Chia-Chen Lin, Chin-Chen Chang, and Hoai Bac Le. "A high quality and small shadow size visual secret sharing scheme based on hybrid strategy for grayscale images." Digital Signal Processing 21, no. 6 (2011): 734-745 (IF = 2.9), Q2.

45. W.Chen, CC.Chang, and **Ngan Le**."High payload steganography mechanism using hybrid edge detector." Expert Systems with applications 37, no. 4 (2010): 3292-3301, 2010. (**IF = 15.9**) **Q1**.

46. Chang, Chin-Chen, Chia-Chen Lin, **Ngan Le**, and Hoai Bac Le. "Self-verifying visual secret sharing using error diffusion and interpolation techniques." IEEE Transactions on Information Forensics and Security 4, no. 4 (2009): 790-801. (**IF = 8.0**) **Q1**.

47. Chang, Chin-Chen, Chia-Chen Lin, **Ngan Le**, and Hoai Bac Le. "Sharing a verifiable secret image using two shadows." Pattern Recognition 42, no. 11 (2009): 3097-3114. (**IF = 8.518**) **Q1**.

Conference Papers

CORE2023 Summary[3]:
A* - 7.49% of 801 ranked venues
A - 14.48% of 801 ranked venues
B - 27.72% of 801 ranked venues

48. Nhat Chung, Taisei Hanyu, Toan Nguyen, Huy Le, Frederick Bumgarner, Duy Minh Ho Nguyen, Khoa Vo, Kashu Yamazaki, Chase Rainwater, Tung Kieu, Anh Nguyen, **Ngan Le**, "Rethinking Progression of Memory State in Robotic Manipulation: An Object-Centric Perspective", AAAI 2026, **(Ranking A*)**.

49. Huy Le, Nhat Chung, Tung Kieu, Jingkang Yang, **Ngan Le**, "UNO: Unifying One-stage Video Scene Graph Generation via Object-Centric Visual Representation Learning", WACV 2026, **(Ranking A)**.

[3] https://portal.core.edu.au/ and http://www.conferenceranks.com/

50. Quang Nguyen, Tri Le, Baoru Huang, Minh Nhat Vu, **Ngan Le**, Thieu Vo, Anh Nguyen, "Learning Human Motion with Temporally Conditional Mamba", SIGGRAPH Asia 2025 **(Ranking A)**.

51. Nguyen, Quang, Nhat Le, Baoru Huang, Minh Nhat Vu, Chengcheng Tang, Van Nguyen, **Ngan Le**, Thieu Vo, and Anh Nguyen. "EgoMusic-driven Human Dance Motion Estimation with Skeleton Mamba." International Conference on Computer Vision (ICCV), 2025, **(Ranking A*)**.

52. Pham, Trong-Thang, Anh Nguyen, Zhigang Deng, Carol C. Wu, Hien Van Nguyen, and Ngan Le. "Interpreting Radiologist's Intention from Eye Movements in Chest X-ray Diagnosis." ACM Multimedia (ACM MM) 2025, **(Ranking A*)**.

53. Pham, Trong-Thang, Akash Awasthi, Saba Khan, Esteban Duran Marti, Tien-Phat Nguyen, Khoa Vo, Minh Tran et al. "CT-ScanGaze: A Dataset and Baselines for 3D Volumetric Scanpath Modeling." International Conference on Computer Vision (ICCV), 2025.

54. Nguyen, Huynh Dang, Trong-Thang Pham, **Ngan Le**, and Van Nguyen. "TolerantECG: A Foundation Model for Imperfect Electrocardiogram." ACM Multimedia (ACM MM) 2025, **(Ranking A*)**.

55. Le, Huy, Nhat Chung, Tung Kieu, Anh Nguyen, and **Ngan Le**. "BiMa: Towards Biases Mitigation for Text-Video Retrieval via Scene Element Guidance." ACM Multimedia (ACM MM) 2025, **(Ranking A*)**.

56. Awasthi, Akash, Brandon V. Chung, Anh M. Vu, **Ngan Le**, Rishi Agrawal, Zhigang Deng, Carol Wu, and Hien V. Nguyen. "MAARTA: Multi-agentic Adaptive Radiology Teaching Assistant." In International Conference on Medical Image Computing and Computer-Assisted Intervention, pp. 358-368. Cham: Springer Nature Switzerland, 2025, **(Ranking A*)**.

57. Nguyen, Nghia, Minh N. Vu, Tung D. Ta, Baoru Huang, Thieu Vo, **Ngan Le**, and Anh Nguyen. "Robotic-clip: Fine-tuning clip on action data for robotic applications." In 2025 IEEE International Conference on Robotics and Automation (ICRA), pp. 5930-5936. IEEE, 2025, **(Ranking A*)**.

58. Le, Quang-Hung, Long Hoang Dang, **Ngan Le**, Truyen Tran, and Thao Minh Le. "Progressive multi-granular alignments for grounded reasoning in large vision-language models." In Proceedings of the AAAI Conference on Artificial Intelligence, vol. 39, no. 4, pp. 4473-4481. 2025, **(Ranking A*)**.

59. Nguyen, Nghia, Minh Nhat Vu, Tung D. Ta, Baoru Huang, Thieu Vo, **Ngan Le,** and Anh Nguyen. "Robotic-CLIP: Fine-tuning CLIP on Action Data for Robotic Applications.", EEE International Conference on Robotics and Automation ICRA 2025, **(Ranking A*)**.

60. Pham, Trong Thang, Tien-Phat Nguyen, Yuki Ikebe, Akash Awasthi, Zhigang Deng, Carol C. Wu, Hien Nguyen, and Ngan Le. "Gazesearch: radiology findings search benchmark." In 2025 IEEE/CVF Winter Conference on Applications of Computer Vision (WACV), pp. 96-106. IEEE, 2025, **(Ranking A)**.

61. Khoa Vo, Thinh Phan, Kashu Yamazaki, Ngan Le "HENASY: Learning to Assemble Scene-Entities for Egocentric Video-Language Model", Conference on Neural Information Processing Systems (NeurIPS) 2024 (**Ranking A*, Acceptance Rate: 25.8%**).

62. Pha Nguyen, Ngan Le, Jackson Cothren, Alper Yilmaz, Khoa Luu, "DINTR: Tracking via Diffusion-based Interpolation", Conference on Neural Information Processing Systems (NeurIPS) 2024 (**Ranking A*, Acceptance Rate: 25.8%**).

63. Tran, Hoai-Chau, Duy MH Nguyen, Duy M. Nguyen, Trung-Tin Nguyen, Ngan Le, Pengtao Xie, Daniel Sonntag, James Y. Zou, Binh T. Nguyen, and Mathias Niepert. "Accelerating Transformers with Spectrum-Preserving Token Merging.", Conference on Neural Information Processing Systems (NeurIPS) 2024 (**Ranking A*, Acceptance Rate: 25.8%**).

64. Thang Pham, Vuong Ho, Tan Bui, Thinh Phan, Patel Brijesh, Donald Adjeroh, Gianfranco Doretto, Anh Nguyen, Carol C. Wu, Hien Nguyen, Ngan Le "FG-CXR: A Radiologist-Aligned Gaze Dataset for Enhancing Interpretability in Chest X-Ray Report Generation", Asian Conference on Computer Vision 2024 (**Acceptance Rate: 32%**).

65. Minh Tran, Khoa Vo, Tri Nguyen, Ngan Le, "Amodal Instance Segmentation with Diffusion Shape Prior Estimation", Asian Conference on Computer Vision 2024 (**Acceptance Rate: 32%**).

66. Duy Le, Kim Tran, Thuc Nguyen, and Ngan Le. "Enhanced Kalman with Adaptive Appearance Motion SORT for Grounded Generic Multiple Object Tracking", Asian Conference on Computer Vision 2024 (**Acceptance Rate: 32%**).

67. Nguyen, T., Vu, M.N., Huang, B., Vuong, A., Vuong, Q., Le, N., Vo, T. and Nguyen, A., 2024. Language-driven 6-dof grasp detection using negative prompt guidance, European Conference on Computer Vision ECCV 2024 ((**Ranking A*, Oral Presentation, Acceptance Rate: 27.9%**).)

68. Duy Le, Kim Tran, **Ngan Le**, "Open-GMOT: Open-Vocabulary Generic Multiple Object Tracking with Motion-Appearance Cost (MAC) SORT", The 27th European Conference on Artificial Intelligence ECAI 2024 (**Ranking A, Acceptance Rate: 23.0%**).

69. Toan Nguyen, Minh Nhat Vu, Baoru Huang, An Vuong, Quan Vuong, **Ngan Le**, Thieu Vo, Anh Nguyen, "Language-Driven 6-DoF Grasp Detection Using Negative Prompt Guidance", European Conference on Computer Vision 2024 (**Ranking A*, Acceptance Rate: 27.9%**).

70. Tuan Van Vo, Minh Nhat Vu, Baoru Huang, An Dinh Vuong, **Ngan Le**, Thieu Vo, Anh Nguyen "Language-Driven Grasp Detection with Mask-Guided Attention", The 2024 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), 2024 (**Ranking A, Oral Presentation, Acceptance Rate: 10%**).

71. Nghia Nguyen, Minh Nhat Vu, Baoru Huang, An Dinh Vuong, **Ngan Le**, Thieu Vo, Anh Nguyen, "Lightweight Language-driven Grasp Detection using Conditional Consistency Model", The 2024 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), 2024 (**Ranking A, Oral Presentation, Acceptance Rate: 10%**).

72. Tran, Kim Hoang, Tien-Phat Nguyen, Anh Duy Le Dinh, Pha Nguyen, Thinh Phan, Khoa Luu, Donald Adjeroh, and **Ngan Le**. "Z-GMOT: Zero-shot Generic Multiple Object Tracking", The 2024 Annual Conference of the North American Chapter of the Association for Computational Linguistics, NAACL Findings, June 2024 .(**Ranking A, Findings Acceptance Rate 12.5%**).

73. Tran, Kim Hoang, Phuc Vuong Do, Ngoc Quoc Ly, and **Ngan Le**. "Unifying Global and Local Scene Entities Modelling for Precise Action Spotting." International Joint Conference on Neural Networks IJCNN July 2024 (**Ranking A, Oral Presentation**).

74. Tran, Minh, Winston Bounsavy, Khoa Vo, Anh Nguyen, Tri Nguyen, and **Ngan Le**. "Shape-Former: Shape Prior Visible-to-Amodal Transformer-based Amodal Instance Segmentation." International Joint Conference on Neural Networks IJCNN 2024 July 2024 (**Ranking A, Oral Presentation**).

75. Trinh, Quoc-Huy, Nhat-Tan Bui, Phuoc-Thao Vo Thi, Hai-Dang Nguyen, Debesh Jha, Ulas Bagci, **Ngan Le**, and Minh-Triet Tran. "Pose Guidance by Supervision: A Framework for Clothes-Changing Person Re-Identification.", IEEE International Conference on Advanced Video and Signal-Based Surveillance AVSS July 2024 (**Ranking B, Oral Presentation**).

76. Bui, Nhat-Tan, Dinh-Hieu Hoang, Thinh Phan, Minh-Triet Tran, Brijesh Patel, Donald Adjeroh, and **Ngan Le**. "TSRNet: Simple Framework for Real-time ECG Anomaly Detection with Multimodal Time and Spectrogram Restoration Network.", IEEE International Symposium on Biomedical Imaging ISBI May 2024 (**Ranking A**).

77. Bui, Nhat-Tan, Dinh-Hieu Hoang, Minh-Triet Tran, and **Ngan Le**. "Sam3d: Segment anything model in volumetric medical images." IEEE International Symposium on Biomedical Imaging ISBI May 2024 (**Ranking A**).

78. Le, Huy, Tung Kieu, Anh Nguyen, and **Ngan Le**. "WAVER: Writing-style Agnostic Video Retrieval via Distilling Vision-Language Models Through Open-Vocabulary Knowledge.", In Proceedings of the IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), pp. 3025-3029. 2024. **(Ranking A, Oral Acceptance rate: 15%)**.

79. Pham, Trong Thang, Jacob Brecheisen, Anh Nguyen, Hien Nguyen, and **Ngan Le**. "I-AI: A Controllable & Interpretable AI System for Decoding Radiologists' Intense Focus for Accurate CXR Diagnoses." In Proceedings of the IEEE/CVF Winter Conference on Applications of Computer Vision (WACV), pp. 7850-7859. 2024. **(Ranking A, Acceptance rate: 41%)**.

80. Phan, Thinh, Khoa Vo, Duy Le, Gianfranco Doretto, Donald Adjeroh, and **Ngan Le**. "ZEETAD: Adapting Pretrained Vision-Language Model for Zero-Shot End-to-End Temporal Action Detection." In Proceedings of the IEEE/CVF Winter Conference on Applications of Computer Vision (WACV), pp. 7046-7055. 2024. **(Ranking A, Acceptance rate: 41%)**.

81. Bui, Nhat-Tan, Dinh-Hieu Hoang, Quang-Thuc Nguyen, Minh-Triet Tran, and **Ngan Le**. "MEGANet: Multi-Scale Edge-Guided Attention Network for Weak Boundary Polyp Segmentation." In Proceedings of the IEEE/CVF Winter Conference on Applications of Computer Vision, pp. 7985-7994. 2024. **(Ranking A, Acceptance rate: 41%)**.

82. Van Vo, Tuan, Minh Nhat Vu, Baoru Huang, Toan Nguyen, **Ngan Le**, Thieu Vo, and Anh Nguyen. "Open-vocabulary affordance detection using knowledge distillation and text-point correlation." IEEE International Conference on Robotics and Automation ICRA 2024. **(Ranking A*, Acceptance rate: 45%)**.

83. Nguyen, Toan, Minh Nhat Vu, Baoru Huang, Tuan Van Vo, Vy Truong, **Ngan Le**, Thieu Vo, Bac Le, and Anh Nguyen. "Language-Conditioned Affordance-Pose Detection in 3D Point Clouds." IEEE International Conference on Robotics and Automation ICRA 2024 **(Ranking A*, Acceptance rate: 45%)**.

84. Yamazaki, Kashu, Taisei Hanyu, Khoa Vo, Thang Pham, Minh Tran, Gianfranco Doretto, Anh Nguyen, and **Ngan Le**. "Open-Fusion: Real-time Open-Vocabulary 3D Mapping and Queryable Scene Representation." IEEE International Conference on Robotics and Automation ICRA 2024 **(Ranking A*, Oral Acceptance rate: 9%)**.

85. de Luis, Adrian, Minh Tran, Taisei Hanyu, Anh Tran, Liao Haitao, Roy McCann, Alan Mantooth, Ying Huang, and **Ngan Le**. "SolarFormer: Multi-scale Transformer for Solar PV Profiling.", International Conference on Smart Grid Synchronized Measurements & Analytics (SGSMA). 2024.

86. Yamazaki, Kashu, Khoa Vo, Quang Sang Truong, Bhiksha Raj, and **Ngan Le**. "VLTinT: visual-linguistic transformer-in-transformer for coherent video paragraph captioning." In Proceedings of the AAAI Conference on Artificial Intelligence, vol. 37, no. 3, pp. 3081-3090. 2023. **(Ranking A*, Oral Acceptance rate: 3%)**.

87. Truong, Thanh-Dat, **Ngan Le**, Bhiksha Raj, Jackson Cothren, and Khoa Luu. "Fredom: Fairness domain adaptation approach to semantic scene understanding." In Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition, pp. 19988-19997. 2023. **(Ranking A*, Acceptance rate: 25.8%)**.

88. Nguyen, Toan, Minh Nhat Vu, An Vuong, Dzung Nguyen, Thieu Vo, **Ngan Le**, and Anh Nguyen. "Open-vocabulary affordance detection in 3d point clouds." In 2023 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), pp. 5692-5698. IEEE, 2023. **(Ranking A, Oral Acceptance rate: 10%)**, **(Best paper finalist)**.

89. Vo, Khoa, Trong-Thang Pham, Kashu Yamazaki, Minh Tran, and **Ngan Le**. "DNA: Deformable Neural Articulations Network for Template-free Dynamic 3D Human Reconstruction from Monocular RGB-D Video." In Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition, pp. 3675-3684. 2023. **(Ranking A*, Acceptance rate: 25.8%)**.

90. Joo, Hyekang Kevin, Khoa Vo, Kashu Yamazaki, and **Ngan Le**. "Clip-tsa: Clip-assisted temporal self-attention for weakly-supervised video anomaly detection." In 2023 IEEE International Conference on Image Processing (ICIP), pp. 3230-3234. IEEE, 2023. **(Ranking B, Oral Presentation Acceptance Rate: 18%)**.

91. Nguyen, Tien-Phat, Trong-Thang Pham, Tri Nguyen, Hieu Le, Dung Nguyen, Hau Lam, Phong Nguyen, Jennifer Fowler, Minh-Triet Tran, and **Ngan Le**. "Embryosformer: Deformable transformer and collaborative encoding-decoding for embryos stage development classification." In Proceedings of the IEEE/CVF Winter Conference on Applications of Computer Vision, pp. 1981-1990. 2023. **(Ranking A, Acceptance rate: 40.6%, Oral Presentation)** .

92. Tran, Minh, Khoa T. Vo, Kashu Yamazaki, Arthur F. A. Fernandes, Michael Kidd and **Ngan Le**. "AISFormer: Amodal Instance Segmentation with Transformer." British Machine Vision Conference (2022).**(Ranking A, Acceptance rate: 33.6%, Oral Presentation)**.

93. Vo, Khoa, Kashu Yamazaki, Phong X. Nguyen, Phat Nguyen, Khoa Luu, and **Ngan Le**. "Contextual explainable video representation: Human perception-based understanding." In 2022 56th Asilomar Conference on Signals, Systems, and Computers, pp. 1326-1333. IEEE, 2022.

94. Phan, Thinh, Duc Le, Patel Brijesh, Donald Adjeroh, Jingxian Wu, Morten Olgaard Jensen, and **Ngan Le**. "Multimodality multi-lead ecg arrhythmia classification using self-supervised learning." In 2022 IEEE-EMBS International Conference on Biomedical and Health Informatics (BHI), pp. 01-04. IEEE, 2022 (Ranking B).

95. Yamazaki, Kashu, Sang Truong, Khoa Vo, Michael Kidd, Chase Rainwater, Khoa Luu, and **Ngan Le**. "Vlcap: Vision-language with contrastive learning for coherent video paragraph captioning." In 2022 IEEE International Conference on Image Processing (ICIP), pp. 3656-3661. IEEE, 2022. **(Ranking B)**.

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97. Nguyen, Pha, Thanh-Dat Truong, Miaoqing Huang, Yi Liang, **Ngan Le**, and Khoa Luu. "Self-supervised domain adaptation in crowd counting." In 2022 IEEE International Conference on Image Processing (ICIP), pp. 2786-2790. IEEE, 2022. **(Ranking B**).

98. Vu, Duc-Quang, **Ngan Le**, and Jia-Ching Wang. "(2+ 1) d distilled shufflenet: A lightweight unsupervised distillation network for human action recognition." In 2022 26th International Conference on Pattern Recognition (ICPR), pp. 3197-3203. IEEE, 2022. **(Ranking B)**.

99. Truong, Thanh-Dat, Ravi Teja Nvs Chappa, Xuan-Bac Nguyen, **Ngan Le**, Ashley PG Dowling, and Khoa Luu. "Otadapt: Optimal transport-based approach for unsupervised domain adaptation." In 2022 26th international conference on pattern recognition (ICPR), pp. 2850-2856. IEEE, 2022. **(Ranking B)**.

100. Tran, Minh, Viet-Khoa Vo-Ho, and **Ngan Le**. "3dconvcaps: 3dunet with convolutional capsule encoder for medical image segmentation." In 2022 26th International Conference on Pattern Recognition (ICPR), pp. 4392-4398. IEEE, 2022.**(Ranking B)**.

101. Tran, Minh, Loi Ly, Binh-Son Hua, and **Ngan Le**. "Ss-3dcapsnet: Self-supervised 3d capsule networks for medical segmentation on less labeled data." In 2022 IEEE 19th International Symposium on Biomedical Imaging (ISBI), pp. 1-5. IEEE, 2022. **(Ranking B)**.

102. Hoang, Dinh-Hieu, Gia-Han Diep, Minh-Triet Tran, and **Ngan Le**. "Dam-al: Dilated attention mechanism with attention loss for 3d infant brain image segmentation." In Proceedings of the 37th ACM/SIGAPP Symposium on Applied Computing, pp. 660-668. 2022.

103. Vo, Khoa T., Hyekang Joo, Kashu Yamazaki, Sang Truong, Kris M. Kitani, Minh-Triet Tran and **Ngan Le**. "AEI: Actors-Environment Interaction with Adaptive Attention for Temporal Action Proposals Generation." British Machine Vision Conference (2021). **(Ranking A, Acceptance rate: 29.6%)**.

104. Truong, Thanh-Dat, Chi Nhan Duong, Hoang Anh Pham, Bhiksha Raj, **Ngan Le**, and Khoa Luu. "The right to talk: An audio-visual transformer approach." In Proceedings of the IEEE/CVF International Conference on Computer Vision, pp. 1105-1114. 2021. **(Ranking A*, Acceptance rate: 25%)**.

105. Ho, Ngoc-Vuong, Tan Nguyen, Gia-Han Diep, **Ngan Le**, and Binh-Son Hua. "Point-unet: A context-aware point-based neural network for volumetric segmentation." In Medical Image

Computing and Computer Assisted Intervention–MICCAI 2021: 24th International Conference, Strasbourg, France, September 27–October 1, 2021, Proceedings, Part I 24, pp. 644-655. Springer International Publishing, 2021. **(Ranking A, Acceptance rate: 30.0%)**.

106. Truong, Thanh-Dat, Chi Nhan Duong, **Ngan Le**, Son Lam Phung, Chase Rainwater, and Khoa Luu. "Bimal: Bijective maximum likelihood approach to domain adaptation in semantic scene segmentation." In Proceedings of the ieee/cvf international conference on computer vision, pp. 8548-8557. 2021. **(Ranking A*, Acceptance rate: 25.3%)**.

107. Yamazaki, Kashu, Vidhiwar Singh Rathour and **Ngan Le**. "Invertible Residual Network with Regularization for Effective Medical Image Segmentation." SPIE Medial Imaging 2021.

108. Maynard, Craig W., Ed E. Gbur, Vinh-Loi Ly, Minh-Duc Le, **Ngan Le** Justina Caldas, and Michael T. Kidd. "Assessing dietary branched-chain amino acids to achieve linear programming goals through model extrapolation and empirical research." In Proceedings of the Arkansas Nutrition Conference, vol. 2021, no. 1, p. 10. 2021.

109. Nguyen, Tan, Binh-Son Hua, and **Ngan Le**. "3d-ucaps: 3d capsules unet for volumetric image segmentation." In Medical Image Computing and Computer Assisted Intervention–MICCAI 2021: 24th International Conference, Strasbourg, France, September 27–October 1, 2021, Proceedings, Part I 24, pp. 548-558. Springer International Publishing, 2021. **(Ranking A, Oral Acceptance rate: 10%)**.

110. Le, Minh Duc, Vidhiwar Singh Rathour, Quang Sang Truong, Quan Mai, Patel Brijesh, and **Ngan Le**. "Multi-module recurrent convolutional neural network with transformer encoder for ECG arrhythmia classification." In 2021 IEEE EMBS International Conference on Biomedical and Health Informatics (BHI), pp. 1-5. IEEE, 2021 **(Ranking B)**.

111. **Ngan Le**, James Sorensen, Toan Duc Bui, Arabinda Choudhary, Khoa Luu, and Hien Nguyen. "Pairflow: Enhancing portable chest x-ray by flow-based deformation for covid-19 diagnosing." In 2021 IEEE International Conference on Image Processing (ICIP), pp. 215-219. IEEE, 2021. **(Ranking B)**.

112. Vo-Ho, Viet-Khoa, **Ngan Le**, Kashu Kamazaki, Akihiro Sugimoto, and Minh-Triet Tran. "Agent-environment network for temporal action proposal generation." In ICASSP 2021-2021 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), pp. 2160-2164. IEEE, 2021. **(Ranking A)**.

113. Rathour, Vidhiwar Singh, Kashu Yamakazi, Thu Hoàng and **Ngan Le**. "Roughness Index and Roughness Distance for Benchmarking Medical Segmentation." Bioimaging (Bristol. Print) (2021).

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117. **Ngan Le**, Kashu Yamazaki, Kha Gia Quach, Dat Truong, and Marios Savvides. "A multi-task contextual atrous residual network for brain tumor detection & segmentation." In 2020 25th International Conference on Pattern Recognition (ICPR), pp. 5943-5950. IEEE, 2021 **(Ranking B)**.

118. Bui, Toan Duc, Manh Nguyen, **Ngan Le**, and Khoa Luu. "Flow-based deformation guidance for unpaired multi-contrast MRI image-to-image translation." In Medical Image Computing and Computer Assisted Intervention–MICCAI 2020: 23rd International Conference, Lima, Peru, October 4–8, 2020, Proceedings, Part II 23, pp. 728-737. Springer International Publishing, 2020. **Ranking A, Acceptance rate: 35.5%**.

119. Duong, Chi Nhan, Kha Gia Quach, Ibsa Jalata, **Ngan Le**, and Khoa Luu. "Mobiface: A lightweight deep learning face recognition on mobile devices." In 2019 IEEE 10th international conference on biometrics theory, applications and systems (BTAS), pp. 1-6. IEEE, 2019. **(Ranking B)**.

120. Duong, Chi Nhan, Kha Gia Quach, Khoa Luu, **Ngan Le**, Marios Savvides, and Tien D. Bui. "Learning from longitudinal face demonstration—where tractable deep modeling meets inverse reinforcement learning." International Journal of Computer Vision 127 (2019): 957-971. **(Ranking A*, Acceptance Rate: 26.2%)**.

121. Duong, Chi Nhan, Khoa Luu, Kha Gia Quach, Nghia Nguyen, Eric Patterson, Tien D. Bui, and **Ngan Le**. "Automatic face aging in videos via deep reinforcement learning." In Proceedings of the IEEE/CVF conference on computer vision and pattern recognition, pp. 10013-10022. 2019. **(Ranking A*, Acceptance rate: 25.2%)**.

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125. **Ngan Le**, Chenchen Zhu, Yutong Zheng, Khoa Luu, and Marios Savvides. "Robust hand detection in vehicles." In 2016 23rd International Conference on Pattern Recognition (ICPR), pp. 573-578. IEEE, 2016.**(Ranking B)**.

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127. **Ngan Le**, Yutong Zheng, Chenchen Zhu, Khoa Luu, and Marios Savvides. "Multiple scale faster-rcnn approach to driver's cell-phone usage and hands on steering wheel detection." In Proceedings of the IEEE conference on computer vision and pattern recognition workshops, pp. 46-53. 2016. **(Spotlight)**.

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130. M'hiri, Faten, **Ngan Le**, Luc Duong, Christian Desrosiers, and Mohamed Cherief. "Hierarchical segmentation and tracking of coronary arteries in 2D X-ray Angiography sequences." In 2015 IEEE International Conference on Image Processing (ICIP), pp. 1707-1711. IEEE, 2015. **(Ranking B)**.

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134. **Ngan Le**, Khoa Luu, Keshav Seshadri, and Marios Savvides. "A facial aging approach to identification of identical twins." In 2012 IEEE Fifth International Conference on Biometrics: Theory, Applications and Systems (BTAS), pp. 91-98. IEEE, 2012. (Oral Presentation). **(Ranking B)**.

135. Luu, Khoa, **Ngan Le**, Keshav Seshadri, and Marios Savvides. "Facecut-a robust approach for facial feature segmentation." In 2012 19th IEEE International Conference on Image Processing (ICIP), pp. 1841-1844. IEEE, 2012. **(Ranking B)**.

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137. M'hiri, Faten, **Ngan Le**, Luc Duong, and Mohamed Cheriet. "A new adaptive framework for tubular structures segmentation in X-ray angiography." In 2012 11th International Conference on Information Science, Signal Processing and their Applications (ISSPA), pp. 496-500. IEEE, 2012. **(Ranking B)**.

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Book Chapter

146. Tran, Minh, Viet-Khoa Vo-Ho, Kyle Quinn, Hien Nguyen, Khoa Luu, and **Ngan Le**. "CapsNet for medical image segmentation." In Deep Learning for Medical Image Analysis, pp. 75-97. Academic Press, 2024.

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148. **Ngan Le**, Khoa Luu, Chi Nhan Duong, Kha Gia Quach, Thanh Dat Truong, Kyle Sadler, and Marios Savvides. "Active contour model in deep learning era: A revise and review." Applications of hybrid metaheuristic algorithms for image processing (2020): 231-260.

149. **Ngan Le**, Khoa Luu, Marios Savvides, Kha Gia Quach, and Chi Nhan Duong. "Recurrent level set networks for instance segmentation." In Pattern Recognition-Selected Methods and Applications. IntechOpen, 2019.

150. Luu, Khoa, Chenchen Zhu, Chandrasekhar Bhagavatula, **Ngan Le**, and Marios Savvides. "A deep learning approach to joint face detection and segmentation." Advances in face detection and facial image analysis (2016): 1-12.

INVITED TALKS

- Asian Conference of Computer Vision ACCV, Vietnam December 2024.
- AURP's 2024 International Conference, Arkansas November 2024.
- AAAI symposium, Machine Intelligence for Equitable Global Health, Virginia 2024.
- ACM student research, Arkansas, 2024.
- Computational and Applied Mathematics, Arkansas, 2023.
- Machine Learning & Computer Vision in Animal Welfare, France, 2023.
- WVAR-CRESH: Summer Workshop on AI & Smart Health, West Virginia, 2023.
- NSF DART Conference Little Rock, Arkansas, 2023.
- Southeast Symposium on Contemporary Engineering SSCET Little Rock, Arkansas, 2023.
- NSF DART Conference Little Rock, Arkansas, 2022.
- Department of Electrical and Computer Engineering, University of Houston, Texas, 2022.
- Data Science Summer Camp, Arkansas, 2021.
- Applications of Computer Vision in Retailers, Arkansas, 2020.
- Deep Learning in Medical Imaging, NIH IDeA, Neveda, 2019.

PROFESSIONAL SERVICE

- *Journal Editor Board*: Associate Editor, ScienceDirect Machine Learning with Applications (2021-present).
- *Conference Board*:
  - Area Chair, The Association for the Advancement of Artificial Intelligence (AAAI), 2025.
  - Area Chair, the International Joint Conference on Artificial Intelligence (IJCAI), 2025, 2026.
  - Area Chair, the International Symposium on Information and Communication Technology (SOICT) 2025.
  - Workshop Chair, International Conference on Robotics and Automation, 2025.
  - Area Chair, Asian Conference on Computer Vision (ACCV), 2025.
  - Technical Chair, the International Conference on Medical Imaging and Computer-Aided Diagnosis MICAD (2022, 2023, 2024, 2025).
  - Area Chair, Asilomar 2022.

- *Workshop Organizer*:
  - Workshop, Emerging LLM/LMM technologies in medicine and healthcare, MICCAI conference, 2025.
  - Workshop LAMM (Robust, Trustworthy and Cost-Optimized Learning Across Multiple Modalities: Theory, Algorithms, and Applications), ACCV conference, 2024.
  - Workshop Women in Computer Vision, ACCV conference, 2024.
  - Workshop Medical Image Learning with Less Labels & Imperfect Data, at MICCAI conference, 2021.
  - Workshop Medical Image Learning with Less Labels & Imperfect Data, at MICCAI conference, 2020.
  - Workshop Medical Image Learning with Less Labels & Imperfect Data, at MICCAI conference, 2019.
  - Workshop Interpretable and Annotation-Efficient Learning for Medical Image Computing at MICCAI conference 2020.
  - Workshop Visual Detection, Recognition & Prediction at Altitude & Range, at ICCV conferene 2022.
  - Women in MICCAI WiM at MICCAI 2019, 2020, 2021.
- *Panelist*:
  - NSF Exlent (2025-present)
  - NSF IIS-Small (2024-present).
  - NSF SBIR-AA/AI (2024-present).
  - NSF SBIR-Robotics (2024-present).
  - NSF SBIR-Data Science (2025-present).
  - NSF EPSCoR NASA (2023-Present).
  - NSF GRFP (2022-Present).
  - NSF Agricultural Technologies (2023 - present).
- *Lead Role*:
  - Committee Chair, AI concentration program, University of Arkansas (2025-).
  - Lead instructor, Google NACMI Applied Machine Learning (2021, 2022)
- *Instructor, Mentor, Judger*:
  - Instructor, DART ASRI 2022.
  - Mentor, Women in MICCAI 2021.
  - Mentor, Women in MICCAI 2022.
  - Mentor, University of Arkansas (UARK) AI SUSTEIN 2023
  - Mentor, Arkansas Summer Research Institute, 2021, 2022.
  - Mentor, ACM student research, Arkansas, 2023.
  - Judger, Northwest Arkansas Regional Science and Engineering Fair, 2021.

  - Judger, DART Annual Conference Registration 2022.

- *Journal Reviewer*: Transactions on Pattern Analysis and Machine Intelligence TPAMI; Transactions on Signal Processing TSP; IEEE Transactions on Image Processing TIP; Transactions on Artificial Intelligence TAI; Pattern Recognition, PR; Journal of Digital Signal Processing DSP; Journal of Image and Vision Computing JIVC; Artificial Intelligence Review AIRE; Artificial Intelligence in Medicine AIM; International Journal of Computer Vision IJCV; Medical Image Analysis MIA, IEEE Robotics and Automation Letters, Expert Systems With Applications, IEEE Journal of Biomedical and Health Informatics.

- *Conference Reviewer*: International Joint Conference on Artificial Intelligence IJCAI; Conference on Computer Vision and Pattern Recognition CVPR; Conference on Neural Information Processing Systems NeurIPS; European Conference on Computer Vision ECCV; International Conference on Computer Vision ICCV; The Association for the Advancement of Artificial Intelligence AAAI; International Conference on Acoustics, Speech, and Signal Processing ICASSP; Winter Conference on Applications of Computer Vision WACV; International Conference on Machine Learning ICML; International Conference on Pattern Recognition ICPR; MICCAI; International Conference on Document Analysis and Recognition ICDAR; British Machine Vision Conference BMVC; International Conference on Learning Representations ICLR, ACM Multimedia ACM MM.

- *Internal Service:*
  - Member of faculty search committees in the Department of CSCE, 2025.
  - Member of faculty search committees in the Department of CSCE, 2024.
  - Member of CSCE Diversity and Inclusion, 2024.
  - Chair of CSCE Diversity and Inclusion, 2022.
  - Member of faculty search committees in the Department of CSCE, 2021.
  - Member of faculty search committees in the Department of CSCE, 2020.