

SCHEDULE

*of the*

11TH ANNUAL CONFERENCE  
ON COMPUTER VISION  
AND INTELLIGENT SYSTEMS

*on*

DECEMBER 15<sup>TH</sup> AND 16<sup>TH</sup>, 2025

DAY 1 — MONDAY, DECEMBER 15, IN PSE (E7)-2317 & PSE (E7)-2357 (ONLINE / IN-PERSON HYBRID).

TIME	EVENT	TITLE / AUTHOR(S)
08:30 – 08:50	Registration & Coffee	
08:50 – 09:00	Opening Remarks	<b>Fernando J. Pena Cantu</b> , CVIS 2025 Chair, PhD.
09:00 – 10:00	Oral Presentations	<i>Towards Maximizing Storage Efficiency in Pathological Whole Slide Imaging: ROI-Based Hybrid Image Compression</i> by <b>Faruk, Omor*</b> ; <b>Hasan, Mahmud</b> .
		<i>Real-Time Physics Simulation with Dynamic Mesh-Gaussian Reconstructions</i> by <b>Adrian, Ramlal*</b> ; <b>Zelek, John S.</b>
		<i>Video-Based Player Re-Identification in Ice Hockey via Non-Contextual Implicit Features</i> by <b>Iaboni, Evan*</b> ; <b>Nazemi, Amir</b> ; <b>Chen, Yuhao</b> ; <b>Clausi, David A.</b>
10:00 – 11:00	Academic Keynote	<i>Conformal Prediction: From Images to Agents</i> . <b>Dr. Jesse Cresswell</b> , Staff Machine Learning Scientist, Layer 6 AI, Toronto.
11:00 – 11:20	Oral Presentations	<i>A Physics-Informed Digital Twin Framework for Calibrated Sim-to-Real FMCW Radar Occupancy Estimation</i> by <b>Trinh, Huy*</b> ; <b>Ratto V., Sebastian</b> ; <b>Creager, Elliot</b> ; <b>Shaker, George</b> .
11:20 – 11:40	Industry Lightning Talk	<b>Eaigle</b>
11:00 – 12:00	Oral Presentations	<i>Pre-train to Gain: Robust Learning Without Clean Labels</i> by <b>Szczecina, David*</b> ; <b>Pellegrino, Nicholas</b> ; <b>Fieguth, Paul W.</b>
12:00 – 13:00	Lunch	
13:00 – 14:00	Oral Presentations	<i>Real-Time Food Instance Segmentation for Assistive Robotic Feeding: A Comparative Study</i> by <b>Ghulam, Zeyad*</b> ; <b>Abdullah, Hussein</b> .
		<i>Learning Where the Manifold Ends: Contrastive Flow Matching with Negative Examples</i> by <b>Pena Cantu, Fernando Jose*</b> ; <b>Chen, Yuhao</b> ; <b>Wong, Alexander</b> .
		<i>Tracking the Untrackable: Failure Modes of Object Trackers on Ice Hockey Puck</i> by <b>Salass, Liam*</b> ; <b>Clausi, David A.</b> ; <b>Zelek, John S.</b>
14:00 – 15:00	Academic Keynote	<i>Artificial Intelligence for Music, from Audio to Video, from Cyber to Physical</i> . <b>Prof. Yung-Hsiang Lu</b> , Professor, Purdue University, and <b>Prof. Kristen Yeon-Ji Yun</b> , Clinical Associate Professor, Purdue University.
15:00 – 17:00	Poster Session & Industrial Showcase	

\*Indicates the first author of the paper.

DAY 2 — TUESDAY, DECEMBER 16, IN PSE (E7)-2317 & PSE (E7)-2357 (ONLINE / IN-PERSON HYBRID).

TIME	EVENT	TITLE / AUTHOR(S)
09:30 – 09:45	Registration & Coffee	
09:45 – 10:00	Opening Remarks & Welcome	<b>Fernando J. Pena Cantu</b> , CVIS 2025 Chair, PhD.
10:00 – 11:00	Oral Presentations	<i>Explainable Chain-of-Thought Object Counting in Vision-Language Models using Reinforcement Learning</i> by <b>Zeng, E. Zhixuan*</b> ; <b>Saejith, Nair; Lei, Junfeng</b> .
		<i>Anisotropic Kernels for Neural Implicit Surface Reconstruction</i> by <b>Jang, Soyeon*</b> ; <b>Ramlal, Adrian; Fieguth, Paul W.; Chen, Yuhao</b> ; .
		<i>Lightweight Range-Angle Imaging Based Algorithm for Quasi-Static Human Detection on Low-Cost FMCW Radar</i> by <b>Trinh, Huy*</b> ; <b>Shaker, George</b> .
11:00 – 12:00	Oral Presentations	<i>Player Pose-Driven Handedness Prediction for Ice Hockey</i> by <b>Kevin, Wei*</b> ; <b>Evan, Iaboni; Amir, Nazemi; Clausi, David A</b> .
		<i>GC360IQ: Gradient-Detail Consistency Model for 360-degree Stitched Image Quality Assessment</i> by <b>Zhou, Jinghan*</b> ; <b>Wang, Zhou</b> .
		<i>Optical Flow-Enhanced Thermal Targeting for Real-Time UAV Interception from Mobile Platforms</i> by <b>Bob, Maser*</b> ; <b>Zelek, John S; Khan, Areel</b> .
12:00 – 13:00	Lunch	
13:00 – 14:00	Academic Keynote	<b>Dr. Wojtek Fedorko</b> , Deputy Department Head of Scientific Computing, Triumph.
14:00 – 15:00	Academic Keynote	<i>From Research to Reality: Four Lessons for Lasting Impact in Robotics.</i> <b>Ryan Gariepy</b> , Vice President, Robotics for Rockwell Automation.
15:00 – 15:30	Awards Ceremony & Closing Remarks	

\*Indicates the first author of the paper.

**DAY 1 — POSTER SESSIONS, IN PSE (E7)-EVENT SPACE (IN-PERSON ONLY),  
15:00 – 17:00.**

- 1. *BASTE: Baybayin Scene Text Detection and Recognition based on CRAFT and CRNN* by **Aggarao, John Eric; Tomas, Rock Christian V.****
- 2. *A Physics-Informed Digital Twin Framework for Calibrated Sim-to-Real FMCW Radar Occupancy Estimation* by **Trinh, Huy; Ratto V., Sebastian; Creager, Elliot; Shaker, George.****
- 3. *GC360IQ: Gradient-Detail Consistency Model for 360-degree Stitched Image Quality Assessment* by **Zhou, Jinghan; Wang, Zhou.****
- 4. *Whole-Slide Image Compression and On-Demand Viewing using Reference-Based Super-Resolution* by **Yang, Wenbo; Shin, Seungho; Zhu, Richard Y.; Wang, Zhou.****
- 5. *Tracking the Untrackable: Failure Modes of Object Trackers on Ice Hockey Puck* by **Salass, Liam; Clausi, David A.; Zelek, John S.****
- 6. *Event Detection in Ice Hockey Using Game-Aware Representations: A Dataset and Baseline Study* by **Nsiempba, Ken Mangouh; Nazemi, Amir; Zelek, John S.; Clausi, David A.****
- 7. *Effects of Initialization Biases on Deep Neural Network Training Dynamics* by **Pellegrino, Nicholas; Szczecina, David; Fieguth, Paul W.****
- 8. *Structured Clinical Interpretation of Lung Computed Tomography Using Florence-2: A Post-Detection Application of Vision Language Models* by **Dutta, Pramit; Manokaran, Jenita; Mittal, Richa; Ukwatta, Eranga.****
- 9. *PortionNet: Distilling 3D Geometric Knowledge for Food Nutrition Estimation* by **Bright, Darrin; Raj, Rakshith; Keisham, Kanchan.****
- 10. *Severity-Aware Multimodal Network for Chest X-Ray Triage and Disease Captioning* by **Ghulam, Zinah; Mittal, Richa; Ukwatta, Eranga.****
- 11. *Self-Supervised Learning by Curvature Alignment* by **Ghojogh, Benyamin; Sepanj, M.Hadi; Fieguth, Paul W.****
- 12. *AI Sensor Interfaces: Modern Architectures Enabling Intelligent Perception* by **Ojha, Anjan Kumar.****
- 13. *Spatial Refinement for 3D Human Mesh Recovery in Ice Hockey Broadcast Videos* by **Wang, Zhibo; Rambhatla, Sirisha; Chen, Yuhao; Clausi, David A.****
- 14. *Object ReID in an office environment: An empirical study* by **Klepachevskyi, Dmytro; Rambhatla, Sirisha; Chen, Yuhao.****
- 15. *Dissecting the Trade-offs between accuracy and completeness in SLAM for Large Outdoor Scenes: A Comparative Study of Pi-Long and VGGT-Long* by **Wu, Quanyun; Mao, Dayou; Chen, Yuhao; Clausi, David A.; Li, Jonathan.****
- 16. *Pre-train to Gain: Robust Learning Without Clean Labels* by **Szczecina, David; Pellegrino, Nicholas;****

**Fieguth, Paul W.**

**17. *Beyond Static Gaussians: An Empirical Investigation of Architectural Paradigms for Dynamic 3D Scene Reconstruction* by Ramlal, Adrian; Zelek, John S.**

**18. *Anisotropic Kernels for Neural Implicit Surface Reconstruction* by Jang, Soyeon; Ramlal, Adrian; Chen, Yuhao; Fieguth, Paul W.**

**19. *Neuro-Symbolic Reasoning: A Roadmap of Unsolved Core Questions* by Dhayalkar, Sahil Rajesh.**

**20. *ZoomGate: Scale-Aware Action Recognition Across Mixed Zoom Levels* by Buzko, Kseniia; Clausi, David A.; Zelek, John S.; Chen, Yuhao.**

**21. *Temporally Stable Rink Homography Estimation via 3D Reconstruction and Segmentation Fusion* by Salass, Liam; Dai, Bowen; Chen, Yuhao; Clausi, David A.; Zelek, John S.**

**22. *Lightweight Range-Angle Imaging Based Algorithm for Quasi-Static Human Detection on Low-Cost FMCW Radar* by Trinh, Huy; Shaker, George.**

**23. *Player Pose-Driven Handedness Prediction for Ice Hockey* by Wei, Kevin; Iaboni, Evan; Nazemi, Amir; Clausi, David A.**

**24. *Understanding vision transformer quantization robustness through the lens of out-of-distribution detection* by Kuang, Joey; Wong, Alexander.**

**25. *Video-Based Player Re-Identification in Ice Hockey via Non-Contextual Implicit Features* by Iaboni, Evan; Nazemi, Amir; Chen, Yuhao; Clausi, David A.**

**26. *Evaluating the Gemini 2.5 Flash Model for Use in Dietary Monitoring* by Tamlin, Anna-Margret; Chen, Yuhao.**

**27. *Explainable Chain-of-Thought Object Counting in Vision-Language Models using Reinforcement Learning* by Zeng, E. Zhixuan; Nair, Saejith; Lei, Junfeng.**

**28. *Reducing Closeup Frequency Artifacts for Level-of-Detail 3D Gaussian Splatting* by Zhou, Leonardo; Mao, Dayou; Lin, Yuchen; Ebadi, Ashkan; Wong, Alexander; Chen, Yuhao.**

**29. *Towards Maximizing Storage Efficiency in Pathological Whole Slide Imaging: ROI-Based Hybrid Image Compression* by Faruk, Omor; Hasan, Mahmud.**

**30. *Deep Learning-Based Nuclei Segmentation for Label-Free Histology Using Photon Absorption Remote Sensing Microscopy* by So, Gloria J.; Ali, Umar; Tummon Simmons, James A.; Tweel, James E.D.; Ecclestone, Benjamin R.; Haji Reza, Parsin.**

**31. *An Empirical Study of Attention-Based and LLM-Enhanced Approaches for Large-Scale Floorplan Recognition* by Lin, Yuchen; Mao, Dayou; Chen, Yuhao; Ebadi, Ashkan.**

**32. *Automated Gas Identification from Long-Wavelength Infrared Spectra using a Convolutional Neural Network* by Gulsayin, Ozge; Singh, Arpan R; Itheme, Kenneth K.; Daun, Kyle J.**

33. *Optical Flow-Enhanced Thermal Targeting for Real-Time UAV Interception from Mobile Platforms* by **Maser, Bob; Zelek, John S.**
34. *End-to-End BraTS Segmentation Pipeline with Advanced Architectures, ET-Focused Fine-Tuning, and Ensemble Optimization* by **Riyazat, Mohammadreza; Ukwatta, Eranga.**
35. *PMAF Loss: Probabilistic Margin-Aware Focal Loss for Robust Medical Image Classification* by **Sagar, Abhinav.**
36. *Learning Where the Manifold Ends: Contrastive Flow Matching with Negative Examples* by **Pena Cantu, Fernando Jose; Chen, Yuhao; Wong, Alexander.**
37. *From Regression to Classification: Exploring the Benefits of Distributional Representations of Energy in MLIPs* by **Ali, Ahmad.**
38. *Training-Free Robot Pose Estimation using Off-the-Shelf Foundational Models* by **Liang, Laurence.**
39. *Deep Sequence Model for Genome Wide Discovery of Coding and Regulatory Element Signatures* by **Shabani Nia, Rayhaneh; Karkehabadi, Ali.**
40. *AnytimeGS: Controllable Sized Frequency Ordered Gaussians for Compact Levels-of-Detail Representation* by **Mao, Dayou; Zhou, Leonardo; Ebadi, Ashkan; Wong, Alexander; Chen, Yuhao.**
41. *Real-Time Food Instance Segmentation for Assistive Robotic Feeding: A Comparative Study* by **Ghulam, Zeyad; Abdullah, Hussein.**
42. *Modeling Football Player Trajectories During Passes Using Graph-Structured Recurrent Networks* by **McGuigan, Kiernan; Hsiao, Jayden; Scott, K. Andrea; Rambhatla, Sirisha; Clausi, David A.; Xu, Lincoln Linlin.**
43. *Real-Time Physics Simulation with Dynamic Mesh-Gaussian Reconstructions* by **Ramlal, Adrian; Zelek, John S.**