Schedule

of the

11th Annual Conference on Computer Vision and Intelligent Systems

on

December 15th and 16th, 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	***Fernando J. Pena Cantu**, CVIS 2025 Chair, PhD.*
09:00 – 10:00	Oral Presentations	*Towards Maximizing Storage Efficiency in Pathological Whole Slide Imaging: ROI-Based Hybrid Image Compression* by **Faruk, Omor***; **Hasan, Mahmud**.
		Real-Time Physics Simulation with Dynamic Mesh-Gaussian Reconstructions by **Adrian, Ramlal***; **Zelek, John S**.
		Video-Based Player Re-Identification in Ice Hockey via Non-Contextual Implicit Features by **Iaboni, Evan***; **Nazemi, Amir**; **Chen, Yuhao**; **Clausi, David A**.
10:00 – 11:00	Academic Keynote	*Conformal Prediction: From Images to Agents. **Dr. Jesse Cresswell**, Staff Machine Learning Scientist, Layer 6 AI, Toronto.*
11:00 – 11:20	Oral Presentations	*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**.
11:20 – 11:40	Industry Lightning Talk	***Eaigle***
11:00 – 12:00	Oral Presentations	*Pre-train to Gain: Robust Learning Without Clean Labels* by **Szczecina, David***; **Pellegrino, Nicholas**; **Fieguth, Paul W**.
12:00 – 13:00	Lunch	
13:00 – 14:00	Oral Presentations	*Real-Time Food Instance Segmentation for Assistive Robotic Feeding: A Comparative Study* by by **Ghulam, Zeyad***; **Abdullah, Hussein**.
		Learning Where the Manifold Ends: Contrastive Flow Matching with Negative Examples by **Pena Cantu, Fernando Jose***; **Chen, Yuhao**; **Wong, Alexander**.
		Temporally Stable Rink Homography Estimation via 3D Reconstruction and Segmentation Fusion by **Salass, Liam***; **Dai, Bowen**; **Chen, Yuhao**; **Clausi, David A.**; **Zelek, John S**.
14:00 – 15:00	Academic Keynote	*Artificial Intelligence for Music, from Audio to Video, from Cyber to Physical. **Prof. Yung-Hsiang Lu**, Professor, Purdue University, and **Prof. Kristen Yeon-Ji Yun**, 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	**Fernando J. Pena Cantu**, CVIS 2025 Chair, PhD.
10:00 – 11:00	Oral Presentations	*Explainable Chain-of-Thought Object Counting in Vision-Language Models using Reinforcement Learning* by **Zeng, E. Zhixuan***; **Saeejith, Nair**; **Lei, Junfeng**.
		Anisotropic Kernels for Neural Implicit Surface Reconstruction by **Jang, Soyeon***; **Ramlal, Adrian**;**Fieguth, Paul W.**; **Chen, Yuhao**; .
		Lightweight Range–Angle Imaging Based Algorithm for Quasi-Static Human Detection on Low-Cost FMCW Radar by **Trinh, Huy***; **Shaker, George**.
11:00 – 12:00	Oral Presentations	*Player Pose-Driven Handedness Prediction for Ice Hockey* by **Kevin, Wei***; **Evan, Iaboni**; **Amir, Nazemi**; **Clausi, David A**.
		GC360IQ: Gradient-Detail Consistency Model for 360-degree Stitched Image Quality Assessment by **Zhou, Jinghan***; **Wang, Zhou**.
		Optical Flow-Enhanced Thermal Targeting for Real-Time UAV Interception from Mobile Platforms by **Bob, Maser***; **Zelek, John S**.
12:00 – 13:00	Lunch	
13:00 – 14:00	Academic Keynote	*Advancing accelerator based science with Machine Learning and Quantum Computing: **Dr. Wojtek Fedorko**, Deputy Department Head of Scientific Computing, TRIUMF.*
14:00 – 15:00	Academic Keynote	*From Research to Reality: Four Lessons for Lasting Impact in Robotics. **Ryan Gariepy**, 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, Saeejith; 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; Iheme, 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.**