

CATA 2026 Recommended Conference Program Schedule

DAY 1: (Kaiulani I, II, III, Third Floor)

- 8:00-8:45 Registration and Breakfast with Coffee/Pastry (Kaiulani I, II, III Lobby Area)
- 8:45-9:00 **Opening of CATA and BICOB by Chairs** (Kaiulani II)
Kishwar Shafin, Senior Research Scientist from Google and the Technical lead for DeepVariant
- 9:00-10:00 **CATA and BICOB Keynote 1** (Kaiulani II)
- 10:00-10:30 Coffee Break (Kaiulani Rooms Lobby Area)
- 10:30-12:00 **CATA Session 1 (Kaiulani II): AI for Smart Infrastructure and Environmental Systems**
- 12 – Using Machine Learning to Predict Traffic Speed for Mass Evacuation Planning
 - 16 – Knowledge-Enhanced Transfer Learning for Water Demand Prediction
 - 51 – Geo-Intelligent Wildfire Risk Prediction Using Machine Learning
 - 7 – Quantum Feature Mapping in QSVMs for Industrial HVAC Energy Optimization
- 12:00-1:30 **Lunch Break (Lunch on your own)**
- 1:30-3:00 **CATA Session 2 (Kaiulani II): AI in Healthcare and Public Health**
- 25 – Harnessing Machine Learning to Optimize Community Health Worker Interventions for High-Risk Patients
 - 59 – Machine Learning in Corneal Ectasia Screening: Performance and Interpretability
 - 30 – Applications of Homomorphic Encryption towards Preserving Healthcare Privacy in the Context of Artificial Intelligence
 - 23 – Improving and Piloting the Application of 360° Virtual Reality Technology in Nursing Education
- 3:00-3:30 Coffee Break (Kaiulani Lobby Area)
- 3:30-5:00 **CATA Session 3 (Kaiulani II): Cybersecurity and Secure Systems**
- 22 – Leveraging Artificial Intelligence for Proactive Insider Threat Mitigation in Cybersecurity
 - 60 – Cybersecurity RAG: Retrieval-Augmented Generation with Custom Faithfulness Metrics
 - 61 – Security Enforcement and Governance in Cloud Integrated UAV Swarm

- 38 – DANTE.v2: LSTM-based Approach to Predict Insider Threat on Daily System Logs

DAY 2: (Kaiulani I, II, III, Third Floor)

8:00-9:00 Registration and Breakfast with Coffee/Pastry (Kaiulani I, II, III, Lobby Area)

9:00-10:00 **CATA and BICOB Keynote 2** (Kaiulani II)

“*AI and Humor*” by Kim Binsted, Professor from University of Hawaii, Monoa

10:00-10:30 Coffee Break (Kaiulani Lobby Area)

10:30-12:00 **CATA Session 4 (Kaiulani II): AI for Finance, Social Media, and Business Analytics**

- 19 – Hyperparameter Tuning for Detecting Credit Card Fraud Using Machine Learning
- 20 – Detecting Fake Instagram Accounts Using Machine Learning
- 42 – Country-Level ESG Modeling Using Open Indicators
- 47 – Deep Reinforcement Learning for Risk-Adjusted Portfolio Optimization

12:00-1:30 **CATA and BICOB CONFERENCE Luncheon and Best Paper Awards (Kaiulani I)**

1:30-3:00 **CATA Session 5 (Kaiulani II): NLP, Sentiment, and Educational Data Mining**

- 40 – Temporal Context in Sentiment Polarity Study on Microwave Oven Reviews
- 57 – Modeling Student AI Stances in Education with Text Mining
- 37 – Efficient Facial Emotion Recognition with a Lightweight CNN
- 62 – Latent Space Visualization of Point Cloud Autoencoder Using UMAP
- 14 – MLA-Net: Attention-Driven MobileNet–LSTM Framework for Robust Alzheimer’s Disease Detection from MRI Data

3:00-3:30 Coffee Break (Kaiulani II Lobby Area)

3:30-5:00 **CATA Session 6 (Kaiulani II): Advanced Software and AI for Networked Systems**

- 39 – A Multi-Model Analytical Framework for Sentiment Dynamics
- 41 – Analyzing Overlapping Communities in Heterogeneous Information Networks with Self-Supervised HGNN and Fuzzy C-Means
- 55 – Understanding Overlapping Community Structures in Heterogeneous Information Networks via View-Specific Fuzzy Clustering
- 44 – Modelling and Evaluation of System Constructions Based on Blockchain Network
- 56 – Enhancing Graph RAG Using LLM Generated Ontology from Text

DAY 3: (Kaiulani II - III, Third Floor)

8:00-8:30 Registration and Breakfast with Coffee/Pastry (Kaiulani II - III Lobby Area)

8:30-9:30 **CATA and BICOB Keynote 3** (Kaiulani II)

“Machine Learning on Hierarchical Data: Representation, Model and Learning”
by Hasan Mohammad, Professor, Indiana University.

9:30-11:00 **CATA Session 7 (Kaiulani II): Privacy, Cryptography, and Secure Architectures**

- 26 – Mixed Boolean Arithmetic Obfuscation for Scripting Languages
- 52 – NIZKP-Enhanced RC-Based P2P Networks: Secure and High-Performance Framework
- 32 – Design Pseudo-Random Binary Generators Using Threshold and Geffe Generators
- 54 – Parallel Level Ancestors and Tree Accumulations

11:00-12:30 **CATA Session 8 (Kaiulani II): Advanced AI Models and Learning Architectures**

- 3 – Practical Insights into Semi-Supervised Object Detection Approaches
- 6 – Leveraging Large Language Models for Automated Scalable Development of Open Scientific Databases
- 24 – Evaluation of the Generalization Performance of Policy Optimization Algorithms Under Systematic Environment Perturbations
- 53 – FPGA-Driven Nonlinear Analogue Networks for Deterministic Machine Learning