



2026 ICHI Conference Agenda

This document outlines the schedule and key sessions for our upcoming conference. Please note that all times are in local time.

Day 1: Jun 1, 2026 - Workshops, Doctoral Consortium, Industrial Fireside Chat, NPJ Health System, ICHI Steering

TIME	Session Title	Presenter	Location
7:45 AM - 8:30 AM	Registration and Networking Breakfast		Lobby and Mississippi Annex
8:30 AM - 10:00 AM	Workshop 1: Clinical Natural Language Processing for Quality of Life		Mississippi Room
	<ul style="list-style-type: none"> Welcome Remarks and Foundational Aspects of Clinical NLP for Quality of Life 	Eunji Jeon	
	<ul style="list-style-type: none"> Keynote #1: Mobility Functional Status Ascertainment in EHRs 	Sunghwan Sohn	
	<ul style="list-style-type: none"> Keynote #2: Leveraging NLP to Detect Delirium Hidden in the Electronic Health Record- Opportunity and Value 	Sandeep Pagali	
	Session 1: Oral Presentations		
	<ul style="list-style-type: none"> Repetition-Aware Reinforcement Learning from AI Feedback for Empathetic Dialogue 	Roopika Ganesh, Heena Rathore	

- *From Protocol to Practice: Graded Sepsis Bundle Compliance and Actionable Insights from Real-World ICU Data*
Himanshu Tripathi,
Kaushik Roy, Shahram
Rahimi, Subash Neupane,
Sean Bozorgzad

Poster Session

- *The EHRsupport score, an electronic health record-based social support measure*
Candyce Kroenke, Rhonda
Aoki, Jane Liang, David
Cronkite, Salene Jones,
Jessica Mogk, Larry
Kushi,, Lauren Mammini,
Shaila Strayhorn-Carter,
David Mosen, Stacey
Alexeeff
- *Explainable AI for Mental Health Detection from Social Media: A Comparative Study of Traditional Machine Learning and a Large Language Model*
Chen Xie, Di Zhu, Ziwei
Wang, Haoyun Zhang,
Zihan Wei
- *Eating Disorders Among Individuals with Suicidal Distress: A Cross-Sectional Analysis of Reddit Data on Prevalence, Demographics, and Psychiatrics*
Salim Sazzed, Farhan Noor
Dehan, Md Ehashan Rabbi
Pial

Workshop 2: Hi-Edu 2026

- *Invited Talk*
Hooman Rashidi
- *Early Design of a Case-Based platform for Training Responsible AI Practice in Clinical Care*
Yingbo Ma, Yukyeong
Song
- *Applied Informatics Learning Experience: Case Study on Partnership to Support Student Learning*
Sripriya Rajamani, Eric
Maurer, Roli Dwivedi
- *An Integrated Platform for Health Analytics AI Orchestration Education*
Andi Saptono, Made
Dhanar Indhira Yoga, I
Made Agus Setiawan,
Bambang Parmanto
- *TRACE-Med: Policy-based Abstention to Mitigate Hallucinations in LLM-Generated Clinical Case Analysis*
Sagnik Dakshit, Bhavani
Suryadevara and Lindsey
Stockton T

Conference
Room 303

Workshop 3: Food and Health Knowledge Graphs Sign Large Language Models (LLMs)

Hande McGinty

Conference Room 324

- *Building Concordant Ontology for Food and Health*
- *Hands-On Session for Knowledge Graph Building Using KNARM*

Workshop 4: The 3rd Workshop on Data Privacy and Data Analysis in Healthcare Systems (DPDAHS)

Conference Room 325

- *Hardware-Accelerated AES for Privacy-Preserving healthcare Data Pipelines in Remote Patient Monitoring* Sai Manasa Alamuri, Zahra Najafi
- *Willingness to Share: What Data are Participants Willing to Share for Mental Health Screening* Avantika Shrestha, Kevin Hickey, Elke Rundensteiner
- *FedHemo: A Federated CTAB-GAN+ Framework for Privacy-Preserving Non-Invasive Hemoglobin Prediction using Smartphone-based PPG Signals* Nafi Us Sabbir Sabith, Nathaniel Parise, sachin Shrestha, Tasnia Zaman, Iyssa Iqbal, Anushka Kolli, Masud Rabbani, Sheikh Iqbal Ahamed
- *Differentially Private RAG for Clinical Decision Support from Electronic Health Records* Arun Ramaswamy, Vishnu, Sivakumar Krishnamoorthy, Ramayya Krishnan, Krishna Pillutla, Rema Padman
- *Machine Learning for Medical Student Learning: Can LLM's Evaluate Sample Clinical Encounters and Provide Trustworthy Decision Support to Expert Faculty?* Vijay Koduri, Aarav Purohit, Noah Jacob, Aayush Visaria, Jay Naik, Sarang Kim, Siobhan Corbett, Advait Bongu, Archana Pradhan, Carol Terregino, Naveena Yanamala

Workshop 5: AI for Rare Diseases

Coffman Theater

- *Opening Remarks*
- *Talk 1: AI for Ciliopath Diagnosis and Stratification: Phenotyping, Longitudinal Extraction, and Clinical Evaluation* Carole Faviez

	<ul style="list-style-type: none"> • <i>Talk 2: From Promise to Practice: EHR-Based AI for Rare Genetic Disease Identification and Referral</i> • <i>Author Contributed Talk 1: Early Detection of Rare Disease Using Hierarchical Set-to-Sequence Modeling of Structured Electronic Health Records</i> 	<p>Yao Xiao</p> <p>Yingbo Ma</p>	
10:00 AM- 10:15 AM	Morning Refreshment Break		Mississippi Annex
10:15 AM - 11:45 AM	Workshop 1: Clinical Natural Language Processing for Quality of Life		Mississippi Room
	<ul style="list-style-type: none"> • <i>Keynote #3: Complementary and Integrative Health for Whole Person Health: From Knowledge Graph to Discovery to Real-World Evidence</i> 	Rui Zhang	
	Session 2: Oral Presentations		
	<ul style="list-style-type: none"> • <i>Compliance-Aware Discharge Agent for Auditable ICU Discharge Planning: A Pilot Feasibility Study using Structured eICU Records</i> • <i>Beyond Risk Detection: Functional Roles of Substance Use in Suicidal Discourse Among Individuals with Autism Spectrum Disorder and Eating Disorders</i> • <i>Hands-on Tutorial: Large Language Models for Extracting Wellness Dimensions</i> • <i>Closing Remarks and Future Directions: Open Research Directions for Applied Clinical NLP in Quality of Life</i> 	<p>Chen Xie, Di Zhu, Ziwei Wang, Haoyun Zhang, Zihan Wei</p> <p>Salim Sazzed, Farthan Noor Dehan, Pronoy Sarker, Md Ehashan Rabbi Pial</p> <p>Pushkala Jayaraman, Humayera Islam</p> <p>Muskan Garg</p>	
	Workshop 2: Hi-Edu 2026		Conference Room 303
	<ul style="list-style-type: none"> • <i>Invited Speaker</i> • <i>Invited Speaker</i> • <i>Developing a Digital Twin for Privacy and Security Training for Healthcare Professionals</i> • <i>Preparing the Healthcare Workforce for AI: A Flexible and Student-Centered Graduate Education Model</i> • <i>Characterizing Education, Experience, Technical and Informatics-related Skills Needed</i> 	<p>Chris Yang</p> <p>Stephen Huo</p> <p>Chiu C Tan, Huanmei Wu</p> <p>Leming Zhou Dilhari DeAlmeida, Bambang Parmanto</p> <p>Sripriya Rajamani, Divya Rupini Gunashekar, Umesh</p>	

*from a National Survey on
Governmental Public Health
Leadership*

Ghimire, Jonathan Leider,
Brian Dixon

- *WSI-InteractBench: Network-Aware and Privacy-Conscious WSI Access for Remote Pathology Education*
- *Natural Language Processing in Health Professions Education: A Scoping Review with Implications for Public Health*

Tianrui Wang, Liuyi Chen,
Shirong Zheng

Javad Mohammad
Alizadeh, Pegah Saebi,
Mikesh Kumar Patel,
Huanmei Wu

**Workshop 3: Food and Health
Knowledge Graphs sign Large Language
Models (LLMs)**

Conference
Room 324

- *Keynote Speaker: FoodOn and Other Food Ontologies*
- *Community Townhall and Next Steps*

Damion Dooley

**Workshop 4: The 3rd workshop on Data
Privacy and Data Analysis in Healthcare
Systems (DPDAHS)**

Conference
Room 325

- *Keynote Speaker*
- *One Round is All you Need: Analytic Federated Learning for Task-Heterogeneous Multi-Label Medical Image classification*
- *Final Discussion-Closing Remarks*

Yonghui Wu, PhD
Afsaneh Mahanipour, Hana
Khamfroush

Workshop 5: AI for Rare Diseases

Coffman
Theater

- *Talk 3: Deep Phenotyping of Rare Diseases Using Electronic Health Records Data*
- *Talk 4: Translational AI for Rare Diseases: Text and Image Similarity in Clinical Practice*
- *Author Contributed Talk 3: An Underexplored Frontier: Large Language Models for Rare Disease Patient Education and Communication*
- *Panel + Wrap-Up*

Chunhua Wang

Nicolas Garcelon

Yu Hou

11:55 AM -	Keynote Speaker: <i>From Data to</i>	Anita Burgun	Coffman Theater
12:45 PM	<i>Decisions: Building Learning Health Systems in Hospitals</i>		
12:45 PM- 2:00 PM	Lunch		Mississippi Annex
2:00 PM - 3:30 PM	Workshop 6: <i>Trust-AI 2026: Trustworthy AI for IoMT</i>		Conference Room 324
	<ul style="list-style-type: none"> • <i>Welcome and Introductions</i> • <i>Keynote Speaker</i> • <i>Moderated Paper Spotlight and Roundtable Discussion</i> • <i>Discussion and Transition</i> 	Masooda Bashir, Carl Gunter	
	Workshop 7: <i>Health Digital Twins for Clinical Development and Clinical Practice: Multi-Scale Data, Models, and Trustworthy Translation</i>		Coffman Theater
	<ul style="list-style-type: none"> • <i>Opening Remarks</i> • <i>Closing the Gap in Women's Cancer and Preventive Screening Access Through DiscreteEvent Simulation Modeling</i> • <i>OmniBioTwin: A System of Twinned Systems Framework for Health Digital Twins</i> • <i>T2D Med DT: A Medication Focused Digital Twin Framework for Cardiovascular Risk Reduction in Type 2 Diabetes</i> • <i>Digital Twin Classifier for T2 High vs T2 Low Asthma and Parsimonious Subgroup Discovery</i> • <i>NephroTwin: A Digital Twin Framework for Proactive and Personalized Management of Chronic Kidney Disease</i> • <i>A Scalable Architecture and Implementation Framework for Disease Focused Health Digital Twins: The DT4ALS Case Study</i> • <i>A Real World Evidence Framework for Building Prognostic Digital Twins to Optimize Clinical Trials Efficiency</i> 	<p>Stephen Huo, Yu Huang, Jiang Bian, Huanmei Wu, Yi Qian</p> <p>Alexandra Paiz Delgado, Luciana Salvatierra, Sophia Tu, Jakub williams, Yutong Wang, Rochelle Joly, Yiye Zhang, Bilge Kaya</p> <p>Zhaohui Wang, Yu Huang, Jiang Bian</p> <p>Huanmei Wu, Feifan Liu</p> <p>Yifan Wu, Yuliya Halchenko, Raymond Harvey</p> <p>Sayed Chhattan Shah, Taqi Raza</p> <p>Huanmei Wu</p> <p>Chuan Gai, Dongzhe Hong, Liker Oztog, Jenny Jiang, Stephen Huo</p>	

- *A Digital Process Twin Simulation of Breast Pathology Workflows: Evaluating the Parametric and Structural Impacts of AI Integration* Vidhi Kothari, Devavrath Sandeep, Matthew Hanna, Rema Padman, Ramayya Krishnan

Doctoral Consortium

- *Welcome Remarks*

Dezhi Wu, Gondy Leroy

Conference
Room 303

Student Lightning Talks and Feedback:

1. *Towards Trustworthy and Deployable Multimodal Artificial for Discharge Planning* Ha Na Cho
2. *Towards Robust Clinical reasoning in LLM-aided Clinical Decision Support* Sai Vuruma
3. *Preliminary Benchmarking for Semantic Clinical Artificial Intelligence* Rachel Stephens
4. *A Reusable Shapelet Library for Temporal Exposure Pattern Discovery* Sukrut Shishupal
5. *Hierarchy of Distrust: Modeling Privacy, Application and Provider Trust in MHealth* Timoteo Kelly
6. *CARE: A Multi-Agent Framework for Real-Time Adaptive Vocal Interaction in Dementia Care* Bharat Sowrya Yaddanapalli
7. *Reinforcement-Guided Adaptive Multimodal Classical-Quantum Learning with Generative Reasoning for Clinical Decision Support* Md JobairHossain Faruk
8. *Exploring the impact of Smart Water bottles on Hydration and Productivity in Corporate Environments* Kinjal Bhatt
9. *Understanding Patient Portal Enrollment and Forecasting messaging Volume for Practice Clinical Burnout Intervention* Iyinoluwa Tugbobo
10. *Expert-Driven and Subgroup-Adoptive Multi-Task Survival Modeling for Dental Implant Outcomes* Almonzer Salah Nooraldaim Mohamed

NPJ Health Systems Special Section

- *Introduction of NPJ Health Systems*
- *Presentation: Explainable Differential Diagnosis with Dual-Interence Large Language Models* Rui Zhang, Kai Yu
- *Presentation: Feasibility Assessment of an EHR-Integrated Research* Daniel Sanchez, Abhi Dabral

Conference
Room 325

*Platform for Prospective Data
Collection in Community Oncology
Practice*

- *Presentation: Care Coordination and Patient Safety Outcome: A Graph-based Approach* Yu Huang, Jiang Bian
- *Presentation: Closing the Gap in Women's Cancer and Preventive Screening Access Through Discrete-Event Simulation Modeling (future invited article, accepted at HDT 2026)* Yaren Bilge Kaya
- *Presentation: Accelerating AI Innovation in Healthcare: Real-World Clinical Research Applications on the Mayo Clinic Platform* Cui Tao, Yue Yu

3:30 PM - Afternoon Refreshment Break
3:45 PM

Mississippi
Annex

3:45 PM - **Workshop 6: Trust-AI 2026: Trustworthy
5:15 PM AI for IoMT**

Conference
Room 324

- *A Trustworthy AI Hardware Architecture for Real-Time Seizure Detection and Resilient IoMT Interventions* Masooda Bashir, Carl Gunter
- *Interactive Activity with Participants*
- *Synthesis and Closing*

**Workshop 7: Health Digital Twins for
Clinical Development and Clinical
Practice: Multi-Scale Data, Models, and
Trustworthy Translation**

Coffman
Theater

- *Beyond Individual Prediction: A Population Level Digital Twin for Lung Cancer Survivorship Capacity Planning* Ziwei Zhu, Yuhua Bao, Yiye Zhang
- *Toward Trustworthy Health Digital Twins: A Design and Validation Framework for Realworld Clinical Decision Support* Shalina Champa
- *Bio360: A Unified EventDriven Framework for Multimodal Health Data Integration and Monitoring* Siddharth Karnati, Sankar Dasiga, Srijib Mukherjee
- *AIBased RealTime Contactless Stress and Anxiety Detection Using Camera Vision and LiDAR Simulation* Dr. Gomathi N, Aman Kumar, Suraj Kumar

- *Robustness Evaluation of a Foundation Segmentation Model Under Simulated Domain Shifts in Abdominal CT: Implications for Health Digital Twin Deployment*
 - *Automated Deidentification of Clinical Interview Transcripts in a rTMSBased Depression Treatment Study*
 - *FreqSADSeg: Enabling RealTime Health Digital Twins through FrequencyAware Semantic Alignment Distillation for TextFree Medical Image Segmentation*
 - *Keynote*
 - *Final- Closure*
- Sanghati Basu
- Sara Hashempour, Jayce Doose, Paul Heider, Brendan Murney, Corbin Ping, Losa McTeague, Paul Sajda, Danielle Taylor
Hai Li, Wanli Zing, Chenglu Lu
- Wei Liu
Stephen Huo, Yu Huang, Jiang Bian, Huanmei Wu, Yi Quan

Doctoral Consortium

Elevator Pitch Exercises

Gondy Leroy

Conference Room 303

ICHI Steering Committee Meeting

(Invitation Only)

Conference Room 325

Industrial Track Fireside Chat:

The University as Health AI Engine: Infrastructure, Governance, and Minnesota's Moment

Tarek Tomes, VP & CIO
University of Minnesota

Mississippi Room

Shaping the Future of Health AI: Inside the Federal Strategy on Data, Interoperability, and Intelligent Care

Jesse Isaacman-Beck,
PhD Director of AI Policy and Strategy at U.S. Department Health and Human Services

Day 2: Jun 2, 2026 - Young Scholars, Tutorials, Industrial Track, Sessions, Women in Health

TIME	Session Title	Presenter	Location
7:45 AM - 8:15 AM	Registration and Networking Breakfast		Lobby and Mississippi Annex
8:15 AM - 9:45 AM	Young Scholar (8am-9:30am) Lightning Talks:		Mississippi Room
	1. <i>DrugOT Rank: Optimal Transport-Guided Ranking for Interpretable Drug Repurposing</i>	Rishik Kondadadi, Dan McCreary	
	2. <i>Entropy-Profiled Diagnostic Boundary for Disease Pairs</i>	Nathan Zhuang, Jacqueline Howells	
	3. <i>BystAid: Real-Time Panic-Adaptive First Aid Guidance for Untrained Bystanders via Dual-Graph Retrieval and mLSTM Context Encoding</i>	S.L. Richris, Aleena Sebastian	
	4. <i>Predicting Alzheimer's Neuropathology from Single-Nucleus RNA-seq: A SEA-AD Community Challenge Benchmark</i>	Long Nguyen, Huixin Zhan	
	5. <i>Emotion-Preserving Music Recommendation from Autobiographical Narratives for Older Adults</i>	Newton Niu	
	6. <i>DNA Origami-Based Aptamers Targeting the Beta-Secretas 1 (BACE1) Protein in Alzheimer's Disease</i>	Yashasvi Kompella, Gaurav Sharma	
	7. <i>AI Voice-Based Multilingual Emergency Assessment</i>	Eren Yigidim	
	8. <i>Bloom health: Designing a Compassionate AI Nutrition App to Study Health Habit Adherence and Emotional Safety</i>	Claire Chen	
	9. <i>MOPbot: A Harm-Reduction Chatbot for Opioid Overdose Prevention and Local Resource Navigation</i>	Raymond Cui, Ashish Kalaga, Srikar Velichety	
	10. <i>CASPER: A Data-Driven Computational Framework for</i>	Harsha Poonepalle	

- Integrated Design of RPA-CRISPR-Cas12a Diagnostic Assays*
11. *Can a Vision-Language Model Predict Recurrence Risk in Breast Cancer Patients?* Eden Wu
 12. *TEENSAVE: Teen Organ Donation Support via AI and Virtual Engagement* Isabel Yang, Fang Li, Jianfu Li, Cui Tao
 13. *Finding the Best Doctors: What Signals Help Patients Identify High-Quality Physicians?* Alethea Liu
 14. *Can LLMs Predict Cognitive Health from Daily Signals? Evidence from Real-World EMA Data* Anthony Fu
 15. *Development and Evaluation of Multi-Modal Universal CPR AI Assistance Response Engine (U-CARE)* Aarit Atreja, Morish Shah, Piyush Mathur, Dharan Jaisankar
 16. *Identifying Mental Health Conditions from Social Media Posts using Transformer Models* Logan Wu, Yanshan Wang

Young Scholar Poster Session

(9:30am-10am)

1. *VoicePD: A Mobile Android Application for Non-Invasive Parkinson's Disease Screening via Acoustic Voice Analysis* Iana Luo, Charles Lou
2. *NeuroVoice-Py: Python Toolkit for Speech-Based Biomarkers in Machine Learning Applications* Alice Zhang, Yi Lin
3. *HerHealth: Designing a Trustworthy AI Assistant for Women's Health* Muskan Singh, Jaideep Srivastava
4. *Unveiling Electrophysiological Dynamics in CMVD: A Slow Feature Analysis of Multi-Stage ECG Signals* Gao Zihan
5. *Personalized Depression Risk Prediction via App-Based Passive Sensing: A Longitudinal, Deployment-Oriented Evaluation on the GLOBEM Benchmark* Iris Yu
6. *Baseline Predictors of Dementia in the OASIS Dataset: Evaluating Age, Sex, and MMSE Signals* Medha Prasanna, Tamara Jafar
7. *Classifying High-Dimensional Transcriptional Gene Groups Using Machine Learning* Annie Wu, Julia Wu
8. *Analyzing Disparities in Kidney Care Among Immigrants: An Ongoing*

Conference
Room 301/302

- Systematic Review and Meta-Analysis in Public Health Informatics*
- Jathin Bande, Sai Chandana, France Pansegrau, Aaraw Bande, Nakshatra Nallacharu, Jayan Byrapuram, Dani Douri, Dinesha Bande
9. *Evaluating Large Language Model Representations for Differentiating Parkinson's Disease Dementia and Dementia with Lewy Bodies from clinical Notes*
- Sophia Yang
10. *A Chatbot Powered by Large Language Models for Home-Based ADRD Support*
- Ansh Khurana, Xiao Luo
11. *Designed to Fail: A Systematic Gap Analysis of Personal Safety Technology for Individuals with Intellectual and Developmental Disabilities and a Framework for Inclusive Architectural Design*
- Priya Desai
12. *Filtering Electroencephalogram Data using R: A Study on Patients with Seizures*
- Sarayu Pasumarthi, Antonios Marsellos
13. *Computational Genomic & Transcriptomic Analysis Reveals Evolutionary Constraints of Ribosomal Biogenesis GTPase CgtA Enabling Design of Novel Allosteric Anti-Resistance Polytherapy to Eradicate Pseudomonas Aeruginosa*
- Arnav Vishwakarma
14. *Novel Design of a Population-Optimized Neoantigen Panel to Increase Accessibility to mRNA-Based Immunotherapy Vaccines for Triple Negative Breast Cancer*
- Akshara Guddeti
15. *Speech as a Biomarker: A Unified, Scalable, and Hierarchical Framework for the Early Detection & Classification of ALS, Parkinson's, and Alzheimer's Diseases*
- Ilina Rao
16. *Phenotype Reliability Weighting for Knowledge Graph-Based Drug Repurposing*
- Aryan Kumar
17. *AI-Driven Synthesis of Training Environments for Scalable Reinforcement Learning in Surgical Robotics*
- Tyler Tong

<p>Industrial Track Policy Keynote (8:15am-8:35am): <i>Evaluating Large Language Models for Clinical Decision Support</i></p>	<p>Ram D. Sriram</p>	<p>Coffman Theater</p>
<p>Industrial Track Policy Panel (8:35am-9:45am): <i>From Data to Policy: Governing AI and Health Informatics in the Age of Intelligent Care</i></p>	<p>Panelist: Senator Eric Lucero, Dr. Ram Sriram, PhD., Jesse Isaacman-Beck, PhD., Dr. Tyler Winkelman, MD,MSc Moderator: Ikram Khan</p>	
<p>Tutorial 1: <i>Knowledge Graph-Guided Domain Generalization for Robust Computational Phenotyping Across Heterogeneous Biomedical Data Regimes</i></p>	<p>Zuoyu Yan, Zhe Huang, Fei Wang and Chang Su</p>	<p>Conference Room 303</p>
<p>Tutorial 2: <i>Synthetic Biomedical Data Generation Across Modalities</i></p>	<p>Saghir Alfasly, Haohan Wang, Xiaolei Huang, Qiqi Xie and Hanshu Rao</p>	<p>Conference Room 324</p>
<p>Scientific Session 1: Analytics Track A: <i>Responsible, Fair, and Privacy-Preserving Health AI</i></p>		<p>Conference Room 325</p>
<ul style="list-style-type: none"> • <i>Fine-Tuning BERT with Privacy-Preserving LLM-Labeled Synthetic Training Data: An Application to Valley Fever Symptom Extraction</i> 	<p>Amimul Ehsan Zoha, Gondy Leroy, John N. Galgiani and Fariba Donovan</p>	
<ul style="list-style-type: none"> • <i>Correcting LLM Policy-Inducted Bias in Sexual Orientation Identification Using Cue-Augmented Fine-Tuning</i> • <i>The Role of Prompting Strategies in AI-Assisted Thematic Analysis</i> 	<p>Lindsay Welton, Ying Liu, Genevieve Melton, Rui Zhang and Elliot Arsoniadis Jiaxuan Zhang, Dezhi Wu, Sai Vuruma, Lucas Aust, Bharat Sowrya Yaddanapalli, Rithika Markanti, Valerie Vera, Xiaoming Li, Jiajia Zhang and Bankole Olatosi</p>	
<ul style="list-style-type: none"> • <i>Pathology Shortcuts: Detecting and Mitigating Reliance on Non-Target Pathologies in Chest X-ray AI</i> 	<p>Han-Jay Shu, Shun-Ting Chang, Meng-Ping Huang, Hao Lee, Takeshi Tohyama, Ahran Han and Po-Chih Kuo</p>	

	<ul style="list-style-type: none"> • <i>Explaining Fairness Enhancement with Collaborative Learning for Prediction of Treatment Completion in Patients with Substance Use Disorder</i> 	Mary Lucas, Quyen Ngo and Christopher Yang	
	<ul style="list-style-type: none"> • <i>From Promising Capabilities to Pervasive Bias: Assessing Large Language Models for Emergency Department Triage</i> 	Joseph Lee, Tianqi Shang, Jae Young Baik, Duy Duong-Tran, Shu Yang, Lingyao Li and Li Shen	
9:45 AM - 10:00 AM	Morning Refreshment Break		Mississippi Annex
10:00 AM - 11:30 AM	Young Scholar		Mississippi Room
	<ul style="list-style-type: none"> • Oral Presentations <ol style="list-style-type: none"> 1. <i>Brain Mets Machine: EEG and Generative AI Signatures of Neurocognitive Creativity</i> 2. <i>Diet, Microbiome, and Health from Adolescence to Aging: Knowledge Discovery Using Evidence-Weighted Knowledge Graphs and an AI Chat Pilot</i> 3. <i>Identification of Problematic Internet Use with Machine Learning</i> 4. <i>Agent-Based clinical AI System for Personalized Survival Risk Prediction</i> 5. <i>PreventAndProtect: An AI-Powered Platform for Adolescent Figure Skating Injury Prevention</i> • <i>Outstanding Young Scholar Award</i> • <i>Panel Discussion: Next steps in Research for Young Scholars</i> 	<p>Heather Zhang, Sandeep Reddivari</p> <p>Ellen Bu, Jianfu Li, Cui Tao</p> <p>Sophia Wang, Weishen Pan, Chang Su</p> <p>Chenyu Zhu, Kai Yu, An Luo</p> <p>Joyce Wu, Shucheng Yu</p>	
	Industrial Track Policy Panel: <i>The GenAI Data Chasm: Are we optimizing models for patients, providers, or businesses, or are we truly optimizing care?</i>	Panelist: Prof Jaideep Srivastava, Dr. Hoifung Poon, Dr. Sravanthi Parasa Moderator: Prasanna Desikan	Coffman Theater

<p>Tutorial 1: <i>Knowledge Graph–Guided Domain Generalization for Robust Computational Phenotyping Across Heterogeneous Biomedical Data Regimes</i></p>	<p>Zuoyu Yan, Zhe Huang, Fei Wang and Chang Su</p>	<p>Conference Room 303</p>
<p>Tutorial 2: <i>Synthetic Biomedical Data Generation Across Modalities</i></p>	<p>Saghir Alfasly, Haohan Wang, Xiaolei Huang, Qiqi Xie and Hanshu Rao</p>	<p>Conference Room 324</p>
<p>Scientific Session 2: <i>Systems Track A: Trustworthy LLM Systems, Privacy, and Security</i></p>		<p>Conference Room 325</p>
<ul style="list-style-type: none"> • <i>Digital Twins for Digital Health: LLM-Enhanced Vulnerability Insight and DDoS Protection for Electronic Health Records</i> • <i>Linguistic and Persona-Based Vulnerabilities in LLM Safety Responses to Antibiotic-Related Queries</i> • <i>Distilling GPT-4o model to improve small language model on HeadQA</i> • <i>Reliable Curation of EHR Dataset via Large Language Models under Environmental Constraints</i> • <i>Mask-PII: A Hybrid System for Anonymizing Personally Identifiable Information in Healthcare Data</i> • <i>A Comprehensive Evaluation of the Phi Family of Small Language Models in Healthcare</i> 	<p>Mangolika Bhattacharya, Anindya Sarkar, Todd Thomas, Rudra Prasad Baksi and Mihai Penica</p> <p>David Alexis García Espinosa, Luis Eduardo Flores Luna, Ángel Andrés Moreno Sánchez and Luis Fernando Caporal Montes de Oca</p> <p>Zaifu Zhan, Min Zeng, Shuang Zhou and Rui Zhang</p> <p>Raymond M Xiong, Panyu Chen, Tianze Dong, Jian Lu, Louis Hu, Nathan Yu, Benjamin Goldstein, Danyang Zhuo and Anru R Zhang</p> <p>Mukesh Kumar Patel, Chiu C Tan, Javad Mohammad Alizadeh and Huanmei Wu</p> <p>Raghav Awasthi, Shalini Shree, Atharva Bhattad, Shreya Mishra, Nishant Singh, Avneesh Khare, Sai Prasad Ramachandran, Avneep Aggarwal, Renee Zachariah, Dwarikanath Mahapatra, Jacek B. Cywinski, Kamal Maheshwari, Ashish K Khanna, Francis Papay and Piyush Mathur</p>	

11:40 AM - 12:30 PM	Keynote Speaker: <i>Towards Virtual Patient: AI for Accelerating Medical Discovery</i>	Hoifung Poon	Coffman Theater
12:30 PM - 2:00 PM	Lunch		
2:00 PM - 3:30 PM	Industrial Track Panel: <i>Public–Private partnerships and industry–academia collaborations — identifying key barriers, community-driven solutions, early wins, recommendations, and emerging trends</i>	Panelist: Matt Loth, Deepika Appana, Julia Thompson, PhD., Jim Southwick	Coffman Theater
	Tutorial 3: <i>Measuring What Matters: Benchmarking Generative, Multimodal, and Agentic AI in Healthcare</i>	Prasanna Desikan, Harshit Rajgarhia, Shivali Dalmia and Ananya Mantravadi	Conference Room 303
	Scientific Session 3: <i>Human Factors Track A: Human-Centered AI Design, Decision Support, and Clinical Communication</i>		Conference Room 324
	<ul style="list-style-type: none"> • <i>Promise and Caution: Mapping Opportunities for AI Decision Support in Emergency Medical Services</i> • <i>Operationalizing Institutional AI Readiness in Hospitals: A Design Science Maturity Model</i> 	Zhan Zhang, Vanessa Agbugba, Enze Bai, Sian Billings, Xiao Luo and Kathleen Adalgais Mike Krey, Karlo Filipovic, Said Rosch, Luka Saban and Mustafa Uzdilli	
	<ul style="list-style-type: none"> • <i>Patient-Centered Design Recommendations for AI-Generated Discharge Summaries</i> 	Pantea Habibi, Haleh Vatani, Paul Landes, Barbara Di Eugenio, Richard Cameron, Andrew Boyd, Pamela Martyn-Nemeth, Carolyn Dickens, Karen Dunn Lopez and Debaleena Chattopadhyay Asiyah Ahmad, Samuel Ehrenstein, Ian Thomas and Naim Oudeh	
	<ul style="list-style-type: none"> • <i>RePurposeX: Designing Mixed-Initiative Decision Support for Drug Repurposing with Biomedical Knowledge Graphs</i> 		

- *Implicit Framing in Obstetric Counseling Notes: A Grounded LLM Pipeline on a VBAC-Eligible Cohort*
Baris Karacan, Barbara Di Eugenio, Patrick Thornton, Joanna Tess and Subhash Kumar Kolar

Scientific Session 5: System Track C:
Population Health Platforms, Data Infrastructure, and Knowledge Systems

Conference Room 325

- *Patient Portal Enrollment Before and During the COVID-19 Pandemic*
Iyinoluwa Tugbobo, Lisa Yanek, Casey Taylor
- *Data Integration and Sharing Architecture for Rapid Emergency Response*
Colin Dzieia, Eduard Wolf, Pinar Bisgin and Michael Pantförder
- *Preventing Epidemic Spread Using Leaky Vaccines*
Da Qi Chen, Ann Li, George Li, Madhav Marathe, Aravind Srinivasan, Anil Vullikanti and Jiayi Wu
- *AI-Assisted Variable Discovery and Biological Validation for Diabetes Modeling*
Xinyi Yang, Yusuf Akbulut, Harun Pirim, Fumou Sun and Juan Li
- *Dynamic-Capacity Relational Graph Convolutional Networks for Large-Scale Biomedical Knowledge Graph Completion*
Mohammed Lnu, Bofan He, Huanying Gu and Jerry Cheng
- *Integration of Artificial Intelligence-Based Chatbots and Geographic Information Systems for Healthcare Access: A Systematic Review*
Bharat Sowrya Yaddanapalli and Dezhi Wu

3:30 PM - Afternoon Refreshment Break
3:45 PM

Mississippi Annex

3:45 PM - **Industrial Track Closing Keynote:**
5:15 PM *Shaping the Future of Health AI: Inside the Federal Strategy on Data, Interoperability, and Intelligent Care*

Ben Teplitzky, PhD

Coffman Theater

Tutorial 3: Measuring What Matters: Benchmarking Generative, Multimodal, and Agentic AI in Healthcare

Prasanna Desikan, Harshit Rajgarhia, Shivali Dalmia and Ananya Mantravadi.

Conference Room 303

Scientific Session 4: Systems Track B:
Clinical Decision Support Systems and Medical Agents

Conference Room 324

- *EXAIM: Explainable AI Middleware for Real-Time Multi-Agent Clinical Decision Support* Abem Woldesenbet and Andy Behrens
- *Enhancing Clinical Trial Patient Matching through Knowledge Augmentation and Reasoning with Multi-Agent* Hanwen Shi, Jin Zhang and Kunpeng Zhang
- *BLUEmed: Retrieval-Augmented Multi-Agent Debate for Clinical Error Detection* Saukun Thika You, Nguyen Anh Khoa Tran, Wesley Kenneth Marizane, Hanshu Rao, Qiunan Zhang and Xiaolei Huang
- *Pseudocode Generation from Clinical Protocol Flowchart using Large Vision-Language Models* Le Zhou, Xiao Luo, Chinmay Chandra and Zhan Zhang
- *MediHive: A Decentralized Agent Collective for Medical Reasoning* Xiaoyang Wang and Christopher Yang

Women in Health Informatics

From Mentorship to Sponsorship: Advancing Women into Health Informatics Leadership

Conference Room 325

- *Opening Remarks* Suhyun Park
- *Panel Discussion*
 - *Mentorship vs Sponsorship* Panelist: Cui Tai, PhD
 - *Seeking Advice Across Career Stages* Jenna Marquard, PhD, FACMI
 - *Sustaining and Expanding Mentorship* Amye Tevaarwerk, MD
 - *Access and Equity*
 - *Navigating Emerging Leadership Space*
 - *Pay it Forward*
- *Discussion and Q&A* Suhyun Park
- *Networking*

5:15 PM -
6:15 PM

Poster Session

1. *Ontology-Driven Identification of SNOMED CT Relations for Clinical Terms* Rohit J Kate
2. *DREAM KG: A KG-Augmented Conversational System for People Experiencing Homelessness* Javad Mohammad Alizadeh, Genhui Zheng, Chiu C Tan, Yuzhou Chen, Omar Martinez, Philip McCallion, Ying Ding, Chenguang Yang, Annemarie Tomosky, Huanmei Wu

Mississippi Room and Mississippi Annex

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| 3. | <i>Navigating the Gap: A Work Domain Analysis of Critical Care Nurses' Medication Administration</i> | Suhyun Park, Deevakar Rogith, Sahiti Myneni, Jenna Marquard |
| 4. | <i>Standards-based Electronic Case Reporting to Public Health: Facilitators and Barriers for a Pilot Study</i> | Sripriya Rajamani, Chanhee Kim, Aasa Dahlberg Schmit, Sarah Solarz |
| 5. | <i>Automated Auditing of Hospital Discharge Summaries for Care Transitions</i> | Akshat Dasula, Prasanna Desikan, Jaideep Srivastava |
| 6. | <i>Reliability of Functional Connectivity for Estimating tDCS Treatment Response in Small fMRI Cohorts of Addiction</i> | Minzhu Zhao, Shengya Zhang, Ardavan Kaviany, Thanmayee Boyapati, Hamed Ekhtiari, Lana Yarosh |
| 7. | <i>Using Electronic Health Records for Improved Differentiation of Dementia with Lewy Bodies and Parkinson's Disease Dementia</i> | Sophia Yang, Betina Idnay |
| 8. | <i>Computer Vision-Based AI System for Movement Analysis in Rehabilitation and Telemedicine Support</i> | Guadalupe Denisse Gonzalez Santos, David Alexis Garcia Espinosa |
| 9. | <i>Linking Workforce Capacity to Clinical Outcomes in Depression Care: A Structure-Process-Outcome Pathway Analysis</i> | Minsu Kim, Byung Park, Caitlin Rizy, Jodie A. Trafton, Matthew T. Boden |
| 10. | <i>Assessing Semantic Data Quality in Interoperable Clinical Entities Using Artificial Intelligence</i> | Gouri Prakash |
| 11. | <i>Making Clinical Data Acquisition and Computational Analysis Closer: An Application to Kidney Transplant Failure</i> | Giuseppe Pezzi, Matina De Salazar, Michele Provenzano, Gianluigi Zaza, Giuseppe Tradigo, Pietro Hiram Guzzi, Guisepppe Pozzi, Patrizia Vizza, Pierangelo Veltri |
| 12. | <i>Influence of Social Determinants of Health on Predictive Power of Machine Learning Models of Mortality/Hospice Risk</i> | Rajanya Lahiri, Zoe Somerville, Sakima Smith, Harriette Van Spall, Pardeep Jhund, Guy Brock, Joshua Joseph, Amaris Williams |

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| 13. <i>Time-Dependent and Nonlinear Effects of MELD on Post-Transplant Survival</i> | Zeinab Delaram, Dinesh Bhatia |
| 14. <i>Long-Term Prediction of Health Checkup Results Using Optimal and Inverse Optimal Transport in Unbalanced Panel Data with Short Follow-up</i> | Keisuke Suzuki, Hiyori Yamamoto, Yuki Kosaka |
| 15. <i>Enhanced Adverse-Event Detection and Drug-Event Relation Extraction from Clinical Notes</i> | Omar Alharbi, Cathy Wu, Chuming Chen, Vijay Shanker |
| 16. <i>From Vision transformers to Foundation Models for Breast Cancer Detection in Ultrasound Imaging: A Comprehensive Review and Empirical Analysis</i> | Nouf Alsallum, Mohamed Saadeldin, Aon Safdar |
| 17. <i>Enhancing ICD Code Assignment Accuracy Using a Fine-Tuned Llama-3.1 Model with Chain-of-Thought Reasoning</i> | Yichen Wang, Shuteng Niu, Yiming Wang, Cui Tao, Vivek Kumbhari, Yuting Huang |
| 18. <i>Reproducibility and Robustness of Large Language Models for Mobility Information Extraction from Clinical Narratives: A Comparative Analysis of General-Purpose and Domain-Specific Architectures</i> | Xingyi Liu, Muskan Garg, Eunji Jeon, Heling Jia, Jennifer St Sauver, Sandeep R. Pagali, Sunghwan Sohn |
| 19. <i>Scalable Data Attribution Reveals Fine-Tuning Unlocks LLM Pretrained Knowledge in Biomedical Question Answering</i> | Ye Cao, Zhaozhuo Xu |
| 20. <i>Counterfactual Optimization of Combinatorial Treatments Using Inverse Classification</i> | Sulyun Lee, Nick Street, Aaron Sporrer, Barry Carter, Linnea Polgreen |
| 21. <i>Can Large Language Models Self-Correct in Medical Question Answering? An Exploratory Study</i> | Zaifu Zhan, Mengyuan Cui, Rui Zhang |
| 22. <i>Deep Learning-Driven Data Fusion of NMR and Mass Spectrometry for Disease Prediction</i> | Halil Bisgin, Frank Sun, Nadia Ashrafi, Sumeyya Akyol, Niccolette Monacelli, Tammy Osentoski, Amita Pai, Imam Khaled, Michael Maddens, Ali Yilmaz, Stewart Graham |
| 23. <i>MOR-GPCCA: Monotonicity and Ordinal-Regularized Generalized Probabilistic CCA for Interpretable Longitudinal MRI Biomarkers and</i> | Chenhui Huang, Kazuhiro Watanabe, Yuki Kosaka, Fumiyuki Nihey |

- Sustain Subtype-stage Alzheimer's Disease Progression Modeling* Brayden Cloutier, Halil Bisgin, Musa Yilanli
24. *From Traditional classifiers to Large Language Models: A Comparative Study of Suicidal Intent Detection on Reddit* Zilin Ding, Ting Chen
25. *From Similarity to Answerability: Building Reliable Medical Retrieval Systems via LLM-Driven Utility Distillation* Mohammad Golam Kibria, Lauren Kucirka, Javed Mostafa
26. *Usability Testing of an Explainable AI-Enhanced Tool for Clinical Decision Support: Insights from the Reflexive Thematic Analysis* Shang-Chen Hsieh, Shin-Huan Chen, Bing-Chen Hsieh, Tang-Chuan Wang, Sung-Huai Hsieh
27. *A Framework for Multi-Objective Optimization of Smart Wearables in Digital Health*
28. *Customizing Human_Technology Interaction for Immersive AR Environments: Digital Informatics using Model-Based Systems Engineering* Gayathri Boopathy, Emi Aoki, Flore Norceide, Ravi Venkata, Charles Thompson, Erika Lewis, Kavitha Chandra, Mani S. Chilakala, Yoginath Ganditi, Zahra Najafi, Mohammed E. Eltayeb
29. *Radar-Based Remote Gait Monitoring with Embedded Data Acquisition and Clinician-Facing Metrics* Siddharth Karnati, Sankar Dasiga, Srijib Mukherjee
30. *Bio360: A Unified Event-Driven Framework for Multimodal Health Data Integration and Monitoring*

Industrial Track Social Networking Event

Coffman Theater

6:15 PM -
8:00 PM

Reception

Welcome from Chairs
Welcome Remarks
Academic Host Remarks
Conference Highlights & Community Appreciation
Awards Recognition Ceremony
ICHI 2027 Announcement

Rui Zhang, Cui Tao
Galin Jones, PhD
Sayed Ikramuddin, MD, MHA
Rui Zhang
Cui Tao
Chris Young

Campus Club
4th Floor of
Coffman
Building

Day 3: Jun 3, 2026 - Sessions and Data Challenge

TIME	Session Title	Presenter	Location
7:45 AM - 8:15 AM	Registration and Networking Breakfast		Lobby and Mississippi Annex
8:15 AM - 9:45 AM	Scientific Session 6: Human Factors Track B: Patient Experience, Portals, and Digital Engagement <ul style="list-style-type: none"> • <i>Voices from Reddit: Users' Experiences and Opinions with Generative AI for Health Problems</i> • <i>Patient Portal Use Among Older Adults: A Systematic Review and Meta-Analysis</i> • <i>When "Try Harder" Backfires: Agent-Based Simulation of Tone-Dependent Attrition in Diet Coaching</i> • <i>Unintentional Information Blocking: A Longitudinal Analysis of Availability Failures in mHealth (2011-2025)</i> • <i>High-Stake AI Chatbot Systems in Mental Health Care: A Systematic Literature Review from a Critical Safety Perspective</i> • <i>Design and Evaluation of an AI-Driven Personalized Mobile App to Provide Multifaceted Health Support for Type 2 Diabetes Patients in China</i> 	Yuanying Pang, Lovinta Atrinawati, Ruoyu Li, Zhe He and Mia Liza A. Lustria Nina Sakhnini and Debaleena Chattopadhyay Claire Chen and Jake Chen Timoteo Kelly and John Robert Bautista Deniz Turk and Dezhi Wu Yibo Meng, Zhiming Liu and Haochen Qin	Mississippi Room
	Scientific Session 7: Systems Track D: Engagement, Coaching, and Conversational Health Systems <ul style="list-style-type: none"> • <i>EngageTriBoost: Predictive Modeling of User Engagement in Digital Mental Health Intervention Using Explainable Machine Learning</i> • <i>PRISM-Coach: Privacy-by-Design Adaptive Group Assignment for Digital Lifestyle Coaching at Scale</i> 	Ha Na Cho, Cheryl King, Daniel Eisenberg and Kai Zheng Nariman Mani and Salma Attaranasl	Conference Room 303

- *Mind Companion: An Embodied Conversational Agent for Process-Based Psychotherapy*
Sofie Kamber, Lukas Diebold, Pascal Riachi, Stella Brogna, Andrew Gloster and Rafael Wampfler
- *Toward Accessible Psychotherapy Training Using AI-Driven Interactive Patient Avatars*
Pascal Riachi, Sofie Kamber, Stella Brogna, Andrew Gloster and Rafael Wampfler
- *Persona-Guided LLM Adaptation for Culturally Personalized Diabetes Prevention MCQs*
Jason Fan, Chase Fensore, Jacob Shtulman, Rima Pai, Dewan Shoaib, Megha Shah and Joyce Ho
- *Systematic Evaluation of Large Language Models for Post-Discharge Clinical Action Extraction*
Shivali Dalmia, Ananya Mantravadi and Prasanna Desikan

Scientific Session 8: Analytics Track B:
Clinical Note Mining, Event Extraction, and Summarization

Conference
Room 324

- *Harnessing Language Models for Preoperative Frailty Detection in Clinical Notes*
Chen Bai, Masoud Rouhizadeh, Catherine Price, Nicole Lavin, Raed Yacoub, Mohammad Al-Ani, Todd Manini, Yonghui Wu and Mamoun Mardini
- *Leveraging Large Language Models for Extracting Social Determinants of Health in Real-World Clinical Notes*
Kiersten Campbell, Rana Jreich, Josephine Buclez, Sweta Balaji, Ravi Parikh, Matthew Reyna and Selen Bozkurt
- *Comparing LLM and Fine-Tuned Model Performance on NVDRS Circumstance Extraction with Varying Prompt Complexity*
Geoffrey Martin, Yifan Peng and Xuan Zhong Feng
- *Seizure Frequency Extraction and Normalization from EMU Reports based on Large Language Models and Ontology*
Ran Hu, M R Sandhya Rani, Shiqiang Tao, Guo-Qiang Zhang, Samden Lhatoo, Degui Zhi, Licong Cui and Rashmie Abeyesinghe
- *Using reasoning LLMs to extract SDOH events from clinical notes*
Ertan Dogan, Yifan Peng and Kunyu Yu

- *Toward Complete Hospital Discharge Summarization with Abstract Meaning Representation* Paul Landes, Sitara Rao, Aaron Chaise and Barbara Di Eugenio

Scientific Session 13: Analytics Track F:
Speech, Wearable, and Functional Assessment

Conference
Room 325

- *One Week of Pre-Program Actigraphy Identifies Dropout Risk in Home-Based Pulmonary Rehabilitation for COPD* Louis Faust, Stephanie Zawada, Michelle Grady, Stacey J. Winham, Roberto P. Benzo and Emma Fortune
- *Apnea Events Detection using Low-Fidelity Proxy Signals* Meghna Singh and Jaideep Srivastava
- *GeHirNet: A Sex-Aware Hierarchical Model for Fair and Accurate Voice Pathology Classification* Fan Wu, Kaicheng Zhao, Elgar Fleisch and Filipe Barata
- *Multimodal Skeleton and Ultrasound-Based Modeling for Predicting Upper Limb Disease Severity Progression in Neuromuscular Disorders* Arafat Rahman, Ariful Islam, Allison N. McCrady, Silvia S. Blemker, Rebecca J. Scharf and Laura E. Barnes
- *Wearable-Based Modeling of Upper-Limb Point-to-Point Movements for Severity Estimation in Neuromuscular Disorders* Ariful Islam, Arafat Rahman, Alejandro Vistorte Salgado, Rebecca J. Scharf, Silvia S. Blemker and Laura E. Barnes

Scientific Session 10: Analytics Track D:
Clinical LLMs for Reasoning, Matching, and QA

Coffman
Theater

- *Guided Clinical Reasoning with LLMs: Reconstructing the PHQ-9 from Multimodal Inputs* Rafael Trujillo and Christian Poellabauer
- *Identify Patients at Risk of HIV Using a Clinical Large Language Model from Electronic Health Records* Yiyang Liu, Ziyi Chen, Pogul Suman, Hwayoung Cho, Mattia Prosperi and Yonghui Wu
- *Evolution of LLMs for Clinical Information Extraction: A Comparative Study of GPT and Llama Models* Vipina Keloth, Yang Ren, Kriti Bhattarai and Hua Xu
- *PTM-LLM: Matching Eligible Patients to Trials Based on Large Language Models and Retrieval-Augmented Generation* Xiaodi Li, Shaika Chowdhury, Chung-II Wi, Maria Vassilaki, Xiaoke Liu, Terence T. Sio, Owen Garrick, Young J. Juhn, James R. Cerhan, Cui Tao and Nansu Zong

	<ul style="list-style-type: none"> • <i>Large Language Models for Radiology QA: Benchmarking and Error Taxonomy on RadQA</i> 	Alaleh Hamidi and Kirk Roberts	
9:45 AM - 10:00 AM	Morning Refreshment Break		Mississippi Annex
10:00 AM - 11:30 AM	Scientific Session 11: Human Factors Track C: Ambient, Wearable, and Assessment Technologies in Care Delivery <ul style="list-style-type: none"> • <i>Associating Healthcare Teamwork with Patient Outcomes for Predictive Analysis</i> • <i>Multimodal VAE Nowcasting with LOCF-Residual Correction for Annual Checkups Under Deviation Regimes and Fragmented Modalities</i> • <i>Ambient Intelligence in Intensive Care Units of the Future</i> • <i>Predictive Modeling of Familial Risk Patterns in Neurological and Mental Health Conditions Using Survey-Derived Health Data</i> • <i>Real-Time Correction of Metamorphopsia Using Wearable Technology: Methodology and Clinical Results</i> • <i>Supporting Reliable Stuttering Assessment in Bengali Using Self-Supervised Speech Representations</i> 	Hsiao-Ying Lu and Kwan-Liu Ma Chenhui Huang, Fumiyuki Nihey, Yuki Kosaka, Kentaro Nakahara, Yoshinori Tamada and Koichi Murashita David Przewozny, Detlef Runde, Falko Schmid, Felix Tirschmann and Paul Chojecki Sophia Kozlowski, Wish Shao and Navid Hashemi Tonekaboni Amal Alshahrani, William Innes, Rich Davison and Gary Ushaw Rakibuz Sultan and Beenish Chaudhry	Mississippi Room
	Scientific Session 12: Analytics Track E: Physiological Signal Learning from EEG, ECG, and Sleep Data <ul style="list-style-type: none"> • <i>Optimizing EEG Graph Structure for Seizure Detection: An Information Bottleneck and Self-Supervised Learning Approach</i> • <i>Multimodal EEG-IMU Fusion for Motor Assessment: Leveraging Task-Dependent Complementarity for Robustness</i> 	Lincan Li, Rikuto Kotoge, Xihao Piao, Zheng Chen and Yushun Dong Zhenan Yin, Lalitha Pranathi Pulavarthy and Saptarshi Purkayastha Ian Pope, Jusung Ham, Inyong Choi, Yu-Hsiang Wu, Bijaya Adhikari and Octav Chipara	Conference Room 303

- *End-to-End EEG-Based Auditory Attention Decoding for Cochlear Implant Users*
Nikil Sharan Prabaha
Balasubramanian and
Sagnik Dakshit
- *Federated ECG Classification via Embedding-Level Data Augmentation*
Maryamsadat
Mohtashamian, Xiaojin Li,
Laila Rasmy and Licong
Cui
- *Multi-cohort Sleep EEG-based Depression Detection Using Multi-modal Data from the National Sleep Research Resource*
Eyara Oladipo, Sarwar
Nazrul, Mario Padilla
Rodriguez and Mohamed
Nafea
- *Attention Based Hierarchical Modeling of EKGs for Interpretable Cardiac Disease Detection*

Scientific Session 9: Analytics Track C:
Biomedical Knowledge Representation and Text Mining

Conference
Room 324

- *Robust Biomedical Publication Type and Study Design Classification with Knowledge-Guided Perturbations*
Shufan Ming, Joe Menke,
Neil R. Smalheiser and
Halil Kilicoglu
- *Ontokeeper-Desktop: a semiotic driven ontology evaluation tool for biomedical ontologies*
Muhammad Amith, Xubing
Hao, Yang Gong, Licong
Cui and Cui Tao
- *Complementary Evidence Pathways for LLM-Based Gene-Disease Plausibility Assessment*
Evan Yu, Ginger Gu, Laila
Rasmy, Ziqian Xie and
Degui Zhi
- *Curation and Extraction of Drug-Related Entities from Reddit Platform*
Zewei Wang, Zihan Xu,
Yishu Wei, Michael Chary
and Yifan Peng
- *KoPA-DR: Large Language Models Enhance Biomedical Knowledge Graph Completion for Drug Repurposing*
Yang Zhao, Zoran
Obradovic and Xinghua
Shi
- *Semantic Knowledge Guided Diffusion Model for Biomedical Ontology Definition Generation*
Shailesh Dahal, Ratri
Mukherjee, Nicholas
Mathews, Bijaya Adhikari
and Kishlay Jha

Scientific Session 14: Systems Track E:
Edge, Wearable, and Assistive Health Technologies

Conference
Room 325

- *Real-Time Asthma Triggers via mHealth Integration: Environmental Sensing, Wearable Telemetry, and Natural Language Processing* Aravind Kuruvikkattil, Rashmita Kudamala, Charulata Sree Pokala and Saptarshi Purkayastha
- *Real-Time Environment-Specific Deep Denoising for Edge-Assisted Hearing Aids* Yumna Anwar, Ian Pope, Yu-Hsiang Wu, Steve Goddard and Octav Chipara
- *Using 3D Measurements to Detect Wound Progression* Dahlia Musa, Frank Guido-Sanz, Mindi Anderson, Ji Meng Loh, Desiree Diaz and Salam Daher
- *Hardware-Aware Edge Deep Learning for Multimodal Biomedical Monitoring on Resource-Constrained SoCs* Sara Aly and Shahnam Mirzaei
- *A Scalable Dual-Camera Platform for Behavioral Assessment in Healthcare* Mostafa Habibi, Mehrdad Nourani and Dennis Sullivan
- *Electrotactile, Vibrotactile, and Thermal Feedback in a Wearable CPR Training Game* Yibo Meng, Zhiming Liu and Ye Lyumnsan

Scientific Session 15: Analytics Track G:
Neurological and Mental Health
 Analytics

Coffman
Theater

- *Quantifying the Uncertainty and Risk Contributions of Activities of Daily Living Features in Dementia Prediction* Souvik Bag, Eunji Jeon, Muskan Garg, Xingyi Liu, Maria Vassilaki, Ronald Petersen, Jennifer St. Sauver and Sunghwan Sohn
- *Machine Learning Framework for Multiple Sclerosis Detection: Comparative Analysis of Gut Microbiome and Neuroimaging Biomarkers* Mahlet Andargei and Mai Oudah
- *Unifying Acoustic Features and Text with Multimodal LLMs for Neurodegenerative Screening* Qingfeng Zhang, Yuanxiong Guo and Yanmin Gong
- *Interpretable Alzheimer's Diagnosis via Multimodal Fusion of Regional Brain Experts* Farica Zhuang, Shu Yang, Dinara Aliyeva, Zixuan Wen, Duy Duong-Tran, Christos Davatzikos, Tianlong Chen, Song Wang and Li Shen

- *Graph-Based Biomarker Discovery and Interpretation for Alzheimer's Disease*
Maryam Khalid, Fadeel Sher Khan, John Broussard and Arko Barman
- *Staging and Pseudotime Inference of Alzheimer's Disease Progression using Multimodal Imaging Data*
Akira A. Nair, Zixuan Wen, Zexuan Wang, Jingwen Yan, Andrew J. Saykin, Heng Huang, Paul Thompson, Christos Davatzikos and Li Shen

11:30 AM - Lunch
12:45 PM

Mississippi Annex

12:45 PM -
2:15 PM

Scientific Session 16: System Track F: Clinical Trajectories and Early Warning Systems

Conference Room 303

- *Modeling Patient Care Trajectories with Transformer Hawkes Processes*
Saumya Pandey and Varun Chandola
- *AI-Driven Early-Warning System to Predict Multi-Organ Deterioration in Critical Care Patients*
Chaitanya Krishna Kasaraneni and Sarmista Thalapaneni
- *Autism Spectrum Disorder Computable Phenotyping Using Electronic Health Records with Verified Autism Diagnoses*
Amber Angell, Yongqiu Li, Hesamedin Hakimjavadi, Camille Parchment, Larry Yin, Srikar Chamala, Jiang Bian, Lindsay Thompson and Yi Guo
- *STEP-PD: Stage-Aware and Explainable Parkinson's Disease Severity Classification from Longitudinal Multimodal Clinical Assessments*
Md Mezbahul Islam, John Michael Templeton, Christian Poellabauer and Ananda Mondal
- *Territory-Aware Discrete-Time Deep Learning for Ischemic Stroke Recurrence and Mortality Risk Prediction with Patients Risk Trajectories Using Longitudinal EHR Data*
Samrat Kumar Dey, Adnan I. Qureshi and Chi-Ren Shyu
- *Benchmarking Early Deterioration Prediction Across Hospital-Rich and MCI-Like Emergency Triage Under Constrained Sensing*
Kma Solaiman, Joshua Sebastian and Karma Tobden

Scientific Session 17: Analytics Track H:
Clinical Outcome and Longitudinal Risk Prediction

Conference
Room 324

- *Clinical Hierarchical Multi-Expert Attention Model for Dental Implant Outcome Prediction*
Almonzer Salah
Nooraldaim, Xin Lai,
Xiaoyan Zhu and Jiayin Wang
- *Conditional Flow Matching for Prediction of Future Health Checkup Results using Cross-sectional Data*
Keisuke Suzuki, Yuki Kosaka, Kosuke Nishihara, Mana Hashimoto, Fumiyuki Nihey, Kentaro Nakahara, Yoshinori Tamada and Koichi Murashita
- *Improving Survival Prediction of Head and Neck Cancer Patients by Modeling Long-term Symptom Burden*
Yaohua Wang, Eric A. Anyimadu, Clifton D. Fuller, Amy C. Moreno, Xinhua Zhang, G. Elisabeta Marai and Guadalupe Canahuate
- *Unified Heterogeneous Event Sequence Modeling for Remission-Stage Risk Prediction among Cancer Survivors with Multiple Chronic Conditions*
Haochen Liu, Naveen Abedin, Nicholas Kidd, Kathleen Porter, Wen You and Jundong Li
- *A Domain-Structured Ensemble Framework for Perioperative Outcome Prediction Using Electronic Health Record Data*
Shikhar Shukla and Cristina Barboi
- *Enhancing Lung Cancer Treatment Outcome Prediction through Semantic Feature Engineering Using Large Language Models*
Mun Hwan Lee, Shaika Chowdhury, Xiaodi Li, Sivaraman Rajaganapathy, Eric Klee, Ping Yang, Terence Sio, Liewei Wang, James Cerhan and Nansu Zong

Scientific Session 18: Analytics Track I:
Track Patient Risk Assessment and Personalized Care Analytics

Conference
Room 325

- *Concept-Based Missingness-Aware Recurrent Encoding for Prolonged ICU Stay Prediction*
Yoshitaka Nozaki, Takashi Ohnishi, Shuhei Noyori, Israa Alqassem and Konosuke Temmei

- *When PCOS Meets Eating Disorders: An Explainable AI Approach to Detecting the Hidden Triple Burden* Apoorv Prasad and Susan McRoy
- *LLM-Powered Personalized Glycemic Assessment in Type 2 Diabetes with Wearable Sensor Data* Yifan Gao, Yanmin Gong, Yun Shi and Yuanxiong Guo
- *Characterizing Geographic Variation in GLP-1 Receptor Agonist Prescribing Using Interpretable Machine Learning* Zhouzhou Chu, Sherry Yun Wang, Ang Li and Bowei Tian
- *Instruction Fine-Tuned Language Model for Pediatric Fall Risk Assessment via Iterative Training using Generated Clinical Texts* Thasina Tabashum, Fahmida Yasmin Rifat, Shou-Jen Wang, Joseph Krzak, Karen Kruger, Adam Graf, Ross Chafetz, Jon Davids, Anita Bagley, Jason Woloff, Susan Sienko, Jeremy Bauer and Mark Albert
- *PURmgmt: A Culturally Tailored Digital Intervention for High-Purine Diet Management in China* Yibo Meng, Bingyi Liu and Zhiming Liu

Scientific Session 23: Analytics Track M: Advanced Learning Architectures for Disease and Therapy Modeling

Coffman Theater

- *Forecasting and Analyzing MRSA Infection Patterns with Community and Healthcare Transmission Dynamics* Rituparna Datta, Jiaming Cui, Gregory R. Madden and Anil Vullikanti
- *Reinforcement Learning-Guided Adaptive Fusion Model: Hybrid-Parametrized Quantum Circuits for Robust Histopathological Tumor Classification* Md Jobair Hossain Faruk, Md Kamrul Siam, Jerry Q. Cheng, Huanying Gu and Mai He
- *A Deep Reinforcement Learning Framework based on Frequent Temporal Patterns as States for Optimal Therapy: Assessment in the Hypokalemia domain* Kfir Sofer and Yuval Shahar
- *A Comparative Study of Machine Learning and Language Model Approaches for Classifying Mental Health Disorders* Aejin Lee, Rajesh Das, Ashlee Huang, Balu Bhasuran and Zhe He
- *A Calibrated Class-Weighted Ensemble Framework for Relationship Classification in* T.M Rubaith Bashar, Mengjia Xu, James Geller

	<p><i>SNOWMED CT with Domain-Specific BERT Model</i></p> <ul style="list-style-type: none"> • <i>Cluster-Guided Self-Supervised Learning with Triplet Refinement for Longitudinal Heart Rate Time Series</i> 	Hyungtaek Kwon, Isac Park, Wenchen Li, Elinor Schoenfeld and Fan Ye	
2:15 PM - 2:30 PM	Afternoon Refreshment Break		Mississippi Annex
2:30 PM - 4:00 PM	<p>Scientific Session 20: Systems Track G: Imaging, Surgery, and Visual Analytics Platforms</p> <ul style="list-style-type: none"> • <i>Multi-environment lifelong deep reinforcement learning for medical imaging</i> • <i>A Quality Assurance Framework for Governing Reliability in Clinical AI Systems: A Case Study in EEG-Based Seizure Detection</i> • <i>Gestalt-GNN: Multimodal Panoptic Reasoning for Uncertainty-Aware Medical Image Segmentation</i> • <i>BRAVE: Neuroanatomy-anchored Brain Region Annotation, Visualization, and Exploration Engine for BRAIN Initiative Cell Atlas Network</i> • <i>Legible surgery: visual analytics of video and robot logs for education and research</i> 	<p>Guangyao Zheng, Shuhao Lai, Vladimir Braverman, Michael Jacobs, Vishwa Parekh and Doris Leung</p> <p>Qaisar Khan</p> <p>Srikanth Vemula and Anne Sinko</p> <p>Xiaojin Li, Yan Huang, Wei-Chun Chou, Ling Tong, Shiwei Lin, Rashmie Abeysinghe, Licong Cui, Shiqiang Tao and Guo-Qiang Zhang</p> <p>Ye Li, Hong Seo Lim, Ken Whaler, Kiran Bhattacharyya and Anthony Jar</p>	Mississippi Room
	<p>Scientific Session 21: Analytics Track K: Medical imaging, Segmentation, and Cancer Analytics</p> <ul style="list-style-type: none"> • <i>GCFSeg: Text-Guided Pulmonary Infection Segmentation for Clinical Decision Support via Adaptive Frequency-Domain Feature Decoupling</i> • <i>Automated Renal Cell Carcinoma Grading by Fusing Histomics, Machine and Deep Learning Analysis</i> 	<p>Hai Li, Wanli Xing and Chenglu Li</p> <p>Fnu Neha and Arvind K. Bansal</p>	Conference Room 303

- *Clinically-Informed Modeling for Pediatric Brain Tumor Classification from Whole-Slide Histopathology Images*

Joakim Nguyen, Jian Yu, Jinrui Fang, Nicholas Konz, Tianlong Chen, Sanjay Krishnan, Chandra Krishnan, Ying Ding, Hairong Wang and Ankita Shukla
- *From Routine Imaging to Risk Stratification: Multimodal Vision-Language Survival Modeling for Pancreatic Cancer*

David Le, Ramon Correa-Medero, Amara Tariq, Vedant Joshi Parthesh, Fnu Murlidhar, Hexin Dong, Yifan Peng, George Shih, Zhen Wang, Rahul Pannala, Yano Motoyo and Imon Banerjee
- *Multimodal Slice Interaction Network Enhanced by Transfer Learning for Precise Segmentation of Internal Gross Tumor Volume in Lung Cancer PET/CT Imaging*

Yi Luo, Yike Guo, Hamed Hooshangnejad, Rui Zhang, Xue Feng, Quan Chen, Wil Ngwa, Zongwei Zhou and Kai Ding
- *A Hybrid Classical-Quantum Machine Learning Framework for Tumor Mutation Classification: A Comprehensive Study of Quantum Optimizers in Medical Image Analysis*

Md Jobair Hossain Faruk, Md Kamrul Siam, Jerry Q. Cheng, Huanying Gu, Louis P. Dehner and Mai He

Scientific Session 22: Analytics Track L: Microbiome, Precision Medicine, Privacy and Security

Conference Room 324

- *Efficient Genome-by-k-mer Matrix Construction for Population-Scale Health Analytics*

Mohammadali Serajian, Mahsa Lotfollahi, Oded Green, Kaleb Smith, Simone Marini, Mattia Prosperi and Christina Boucher
- *Robust Clustering Analysis of Genes Related to Age-related Macular Degeneration using RNA-seq*

Brayan Gutierrez, Rinki Ratnapriya and Arko Barman

- *Microbiome-Based Non-Invasive Screening for Endometriosis Using Machine Learning* Aruzhan Bolatova and Mai Oudah
- *Mechanistic Validation and Structural Analysis of PAH-Associated SOX17 for Real-World Relevance* Lingtao Chen, Yuling Deng, Zhiyu Dai, Shuteng Niu, Cui Tao, Kazi Fahim Ahmad Nasif, Bobin Deng and Yixin Xie
- *Vulnerabilities in the Tower: Assessing Embedding Nucleotide Inference Risks in Hybrid CNN-Transformer Genomic Large Language Models (HgLLMs)* Reem Al-Saidi, Erman Ayday and Ziad Kobti
- *SensitiveCancerGPT: Generative AI for Actionable Pharmacogenomics in Precision Oncology* Shaika Chowdhury, Mun Hwan Lee, Sivaraman Rajaganapathy, Lichao Sun, Liewei Wang, Ping Yang, James Cerhan and Nansu Zong

Scientific Session 19: Analytics Track J:
Statistical, Temporal, and Causal Methods

Coffman
Theater

- *Mining Electronic Health Records to Investigate Effectiveness of Ensemble Deep Clustering* Manar Samad, Yina Hou and Shrabani Ghosh
- *Vine Copulas for Analyzing Multivariate Conditional Dependencies in Electronic Health Records Data* Manar Samad, Yina Hou, Megan Witherow and Norou Diawara
- *Three Data Bipartitioning Methods to Improve Prediction of Time to Death* Michael Sossi and Alex Freitas
- *A Reusable Shapelet Library for Temporal Exposure Pattern Discovery* Sukrut Shishupal, Katherine Sward, Mollie Cummins, Amanda Bakian, Rob Smart, Randy Madsen, Urvi Varma, Julio Facelli and Ramkiran Gouripeddi
- *Transfer Learning for Meta-analysis Under Covariate Shift* Zilong Wang, Ali Abdeen and Turgay Ayer

Data Challenge Session

Conference
Room 325

- *From Clinical Concepts to Multimodal Features: Human-AI Collaborative Feature Engineering For Healthcare Prediction* Hai Li, Rui Guo, Chenglu Li

- *Human-Guided Agentic AI for Multimodal Clinical Prediction: Lessons from the AgentDS Healthcare Benchmark* Lalitha Pranathi Pulavarthy, Raajitha Muthyala, Aravind Kuruvikkattil, Zhenan Yin, Rashmita Kudamala, Saptarshi Purkayastha
- *HMITL: Manager-Governed LLM Iteration with Guardrails and Rollback for Reproducible Healthcare Machine Learning Pipelines* Jialuo Chen, Haijing wang, Siyu Shao
- *Designing and Auditing Healthcare Tabular Models for Human Oversight: An Empirical Study from the AgentDS: benchmark healthcare Domain* James Sargsyan
- *Healthcare Data Analysis in Low-Data Environments: A Multi-Task Benchmark Study* Aaron Zou
- *Human-AI Collaborative Modeling for Healthcare Prediction Task in AgentDS* Vedangi Deepak Deshpande, prathmesh Santosh Choudhari

4:10 PM -
5:00 PM

Keynote Speaker: *Harnessing AI and Informatics to Advance Dementia Research and Aging Care*
Closing Remarks

Li Shen

Coffman
Theater

Rui Zhang, Cui Tao