

Poster Presentation

Ayesha Khalid | UTMB | Designing Reliable, Grounded Generative AI Systems for Health-Aligned Workflows: Lessons from a Retrieval-Augmented Virtual Teaching Assistant

Hui Li | McWilliams School of Biomedical Informatics at UTHealth, Houston | Hybrid temporal graph, ODE, and VAE modeling for high-resolution cellular trajectory inference in liver injury

Madison Wright | Banting AI | Toward Protocol Intelligence: AI-Assisted Protocol Structuring for Accurate, Efficient Clinical Research

Shragvi Balaji | Baylor College of Medicine | Less is More? Traditional NLP Outperforms Transformers in Orthopaedic Surgical Triage

Abou Bakr Salama | Baylor College of Medicine | Machine Learning-Based Mortality Prediction in Heart Failure with Preserved Ejection Fraction Using Real-World EHR Data

Jaeyeon Lee | Baylor College of Medicine | LA-MARRVEL: A Knowledge-Grounded and Language-Aware LLM Reranker for AI-MARRVEL in Rare Disease Diagnosis

Iliia Buralkin | Baylor College of Medicine | scDeepVariant: A population-informed deep learning framework for germline variant calling in scRNA-seq

Iliia Buralkin | Baylor College of Medicine | Weakly Supervised Learning for Pediatric Lung Ultrasound using Operational Clinical Data

Nisha Jagannathan | Baylor College of Medicine | Atheoretical and Theoretical Applications of Machine Learning Techniques to Facilitate Precision Psychiatry

Juliana Yue | Baylor College of Medicine | Genomic discovery of polymorphic inverted repeat Alu pair mediated exon-skipping

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Daniel Palacios | Baylor College of Medicine | ClinPreAI: An Agentic AI System for Early Postpartum Depression Risk Prediction from Multimodal EHR Data

Daniel Palacios | Baylor College of Medicine | AI-Assisted Construction of Comprehensive Pediatric Type 1 and Type 2 Diabetes Cohorts from Multimodal EHR Data for Clinical Outcomes Prediction

Seon Young Kim | Baylor College of Medicine | REDCap Assistant: A Multi-Agent Clinical AI System for Automated Patient Registry Curation from Epic Clarity EHR Data

Jorge Botas | Baylor College of Medicine | Closing the Loop: A Single-Cell Foundation Model for Predictive Perturbation and In Vivo Validation of Neurodegenerative Disease Modifiers

Zachary Everton | Baylor College of Medicine / PhD Student | MARRVEL-MCP: A Context-Engineered Natural-Language Query-to-Response Interface for Mendelian Disease Discovery

Matthew Bayes, MD, MPH | Baylor College of Medicine / Texas Children's Hospital | A Modular Retrieval-Augmented Pathology Lookup Agent to Improve Access to Laboratory Knowledge

Yueqian Deng | Baylor College of Medicine & Data Science Center, Jan and Dan Duncan Neurological Research Institute, Texas Children's Hospital, Houston, Texas | Image-Based AI Model for CNV Pathogenicity Prediction Using Genome Browser Visual Context

Mikael Guzman-Karlsson | Baylor College of Medicine | Texas Children's Hospital | Building AI Agents for Healthcare: A Practical Introduction Using Retrieval-Augmented Generation

Mikael Guzman-Karlsson | Baylor College of Medicine | Texas Children's Hospital | From Knowledge Gaps to Clinical Action: Implementation and Evaluation of a Retrieval-Augmented AI Clinical Assistant in Pediatric Neurology

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Johnathan Jia | Baylor College of Medicine, Texas Children's Hospital | Semi-supervised Automated Detection of Gastrointestinal Mucosal Atrophy in Endoscopic Imaging

Heid Dowst | Baylor College of Medicine/UT Health | Multimodal Multi-Agent AI for Extraction of Pancreatic Cancer Treatment Response from Real-World Clinical Data

Anup Philip Zachariah | Crane CPE | Agentforce for Pediatric Care Coordination: Closing Referral-to-Follow-Up

Alex Sansom | Department of Bioengineering, Rice University | AI-Powered Pediatric Prosthetic Hand

Yian Hu | Department of Health Data Science and Artificial Intelligence, McWilliam School of Biomedical Informatics | Phase-Aware Transformer Fusion for Adrenal Lesion Classification in Real- World Multiphase CT

Joshua Robert | EnMed, Texas A&M School of Engineering Medicine | Resolving the Long-Tail Problem in Cardiac AI: Stratified Deep Learning for Rare Arrhythmia Recognition

Joshua Robert | EnMed, Texas A&M School of Engineering Medicine | VasculatorAI: A Dual-Engine Platform Combining Evidence-Based Risk Stratification with Specialized LLM Support

Joshua Robert | EnMed, Texas A&M School of Engineering Medicine | VascuVision: Real-Time Computer Vision for Intraoperative Endovascular Safety

Shalini Singh | Johns Hopkins Bloomberg School of Public Health | OraPredict: A Clinical ChatBot for early detection and prediction of the risk of Oral Cancers using contextual EHR Analysis

Guanghao Li | McWilliams School of Biomedical Informatics at UTHealth Houston | Direction-Aware Calibrated Multi-Horizon Risk Prediction of AD Dementia Progression from Longitudinal Blood DNA Methylation

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Xiaomeng Wang | McWilliams School of Biomedical Informatics, University of Texas Health Science Center at Houston | Large Language Models for Temporal PHI De-identification in Real-World Clinical Notes: Performance and Limitations

Raul Davila | MD Anderson | The Future Supply Chain: MD Anderson's AI Strategy

Ivan Coronado | MD Anderson Cancer Center | Benchmarking Foundation Models for Pathological Chest X-ray Anomaly Detection: A Standardized Evaluation Framework

Ming Hsiu Wu | McWilliams School of Biomedical Informatics, University of Texas Health Science Center at Houston | Towards Precision Protein-Ligand Affinity Prediction Benchmark: A Complete and Modification-Aware DAVIS Dataset

Yi-Ching Tang | McWilliams School of Biomedical Informatics, University of Texas Health Science Center at Houston || Inference-Time Guided Diffusion for PROTAC Linker Design

Adel Sisay | Online Knowledge | Delta Protein Atlas

Fitia Rakoto | ParaDocs | Translating Electronic Clinical Quality Measures into Scalable, Auditable Data Pipelines using Data Build Tool (DBT)

Omar Mohtar | ParaDocs Health | Reducing Manual Chart Review in SNF/LTC Through Evidence-Linked Suspect Gap Detection: A 12-Month Operational and Patient-Centered Outcomes Case Study

Omar Mohtar | ParaDocs Health | From Principles to Practice: A Hands-On Tutorial for AI Ethics, Safety, and Governance in Healthcare

Nidhi Sharath | Plano East Senior High (IB World School) | Automated Brain Tumor Segmentation Using Deep Learning and U-Net Architectures

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Shuyu Lu | McWilliams School of Biomedical Informatics, University of Texas Health Science Center at Houston | Perioperative Digital Twin: A Dynamic Postoperative Organ Injury Risk Stratification Framework

Anita Sumali | Texas A&M School of Engineering Medicine | Evaluating Safety & Empathy in Large Language Model Responses to Suicide-Related Prompts

Pei-Hung Chung | Texas A&M University | Neural machine translation of clinical procedure codes for medical diagnosis and uncertainty quantification

Emilio Mendiola | Texas A&M University | A Transfer Learning Model to Predict Left Ventricle End-Diastolic Pressure from Cardiac Strains

Tanmay Mukherjee | Texas A&M University | Whole-Heart Anatomy Generation from Multi-View MRI: Toward Cardiac Digital Twins

Yining Yang | Texas A&M University | Pannot-FG: Fine-Grained, Evidence-Grounded Reasoning Model for Protein Understanding

Rana Raza Mehdi | Texas A&M University | Multi-Fidelity Deep Learning for Estimation of Infarcted Myocardium From Strain Imaging.

Dongkwan Kim | Texas A&M University | PerturbReason: Mechanistic Virtual Cell Model through Knowledge-Grounded Reasoning

Yihong Yang | Texas A&M University | Multimodal Protein Foundation Models for Variant Effect Prediction and Sequence–Structure Co-Design

Morgan Lilly | Texas A&M University School of Engineering Medicine | Evaluating Safety & Empathy in Large Language Model Responses to Suicide-Related Prompts

Zhandong Liu | Texas Children's Hospital/BCM | Using Local LLMs for Biomedical Informatics and Clinical Data Analysis

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Jennifer Benjamin | Texas Childrens Hospital | Journal Club Reimagined: A Learner-Centered approach using AI

Jennifer Benjamin | Texas Childrens Hospital, Baylor College of Medicine | Can AI Democratize Learning? An Educational Design Research Approach Using CustomGPTs for Clinical Reasoning Skills Teaching

Yue Zhang | The University of Texas Health Science Center at Houston | Comparative Analysis of Machine Learning Models for Heart Disease Prediction: Evidence from the Behavioral Risk Factor Surveillance System

Amarachi Njoku | The University of Texas Health Science Center, Houston | AI Assisted Medication Reconciliation Using Workflow Orchestration to Support Pharmacist Review at Hospital Transitions of Care

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Kareem Abdelghani | The Woodlands Retina Center | AI-Generated Health Information and Its Influence on Self-Management Behaviors Among Adults with Diabetes

Yuhan Zhou | Universe of North Texas | Quality-Aware Data Fusion for Medical Concept Normalization using LLMs

Jagan Mohan Reddy Dwarampudi | University of Houston | A Multi-Scale Linear-Time Encoder for Whole-Slide Image Analysis

Md Ishtyaq Mahmud | University of Houston | Hybrid Spatially Regularized NMF and Marker-Guided Benchmarking: A Unified Framework for Interpretable Spatial Transcriptomics in Cancer

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Debolina Das | University of Houston | Self-Supervised Masked Token Pretraining for Motor Imagery EEG Using a Frozen DCNet Encoder for Cross-Subject Transfer Learning

Yomna Abdelghani | University of Houston | Use of AI-Generated Health Information among Individuals with Mental Health Diagnoses: Patterns of Engagement and Implications for Professional Care

Sohail Abdelghani | University of Houston | Beliefs and Perceptions of AI-Generated Health Information Among College Students: Opportunities for Healthcare Engagement

Nehaa Balaji | University of Houston | PsyMatch: An AI-Based Clinical Decision Support Prototype for Personalized Mental Health Treatment Recommendations

Gowtham Vuppalahadham | University of North Texas | CareLens: A Clinical Decision Support Assistant Leveraging Multimodal EHR Data

Ananya Agarwal | University of North Texas | Efficient Depression Detection from Social Media Posts Using Hybrid Deep Learning

Ajita Rattani | University of North Texas | AI based BMI Prediction from Facial Images

Laxmigayathri Challa | University of North Texas | Toward Reliable Synthetic Lung Cancer Data: An Ontology-Guided LLM Framework

Laxmigayathri Challa | University of North Texas | HealthAdvisor: A Sense-Making-Enhanced Retrieval-Augmented Generation (RAG) System for Healthcare Applications

Yuhan Zhou | University of North Texas | Data Fusion and Quality Enhancement for Medical Concept Normalization using LLMs

S M Saiful Islam Badhon | University of North Texas, Denton, TX | AUM-ST-Driven Vision Transformer Framework for Low-Resource Diabetic Retinopathy Screening

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Kostiantyn Botnar | University of Texas Medical Branch at Galveston | Identifying Risk Factors for a Post-Discharge Recurrent Bacterial Infection in Burn Patients: A Machine Learning Analysis of Electronic Health Records

Emre Umucu | UT El Paso/South Texas VA Medical Center | Using Explainable Modeling to Architect a Future AI System for Trauma-Informed Vocational Rehabilitation

Jaerong Ahn | McWilliams School of Biomedical Informatics, University of Texas Health Science Center at Houston | An Agentic Model Context Protocol Framework for Medical Concept Standardization

Xiaoyang Ruan | McWilliams School of Biomedical Informatics, University of Texas Health Science Center at Houston | A Self-Explainable Dynamic Risk Monitoring Framework for Predicting Alzheimer's Disease and Related Dementias

Alfonso Rojas-Alvarez | UTEP | Age Disparities in Vocational Rehabilitation Program Completion: Understanding Early Exits and Their Impact

Jack Banks | UTHealth Houston | PrioritiesAI: Using Agile Sprints to Accelerate Translation of User-Centered Conversational AI to Enhance Surgical Decision-Making

Zhongwei Jin | Yale University | Validation and Enhancement of Automated EEG-based Prediction of Delayed Cerebral Ischemia Following Subarachnoid Hemorrhage: A Multi-Center Study