9:00am - 10:00am - Affinity 2

Keynote 2 (Hybrid) -- Yulan He: Interpretable Natural Language Understanding

Refreshment Break - Affinity 1 10:00am - 10:30am

Session 4 - 10:30am - 12:30pm

Session 4A - Domain-specific Applications - Affinity 2

**Chair - Martin Halvey** 

10:30am - 10:45am

A Hierarchical Imitation Learning-based Decision Framework for Autonomous Driving by Hebin Liang, Zibin Dong, Yi Ma, Xiaotian Hao, Yan Zheng and Jianye Hao

10:45am - 11:00am

Predicting Interaction Quality of Conversational Assistants With Spoken Language Understanding Model Confidences by Monir Moniruzzaman, Yue Gao, Enrico Piovano, Tamer Soliman, Subhrangshu Nandi, Anoop Kumar and Melanie Bradford

11:00am - 11:15am

A Stochastic Online Forecast-and-Optimize Framework for Real-Time Energy Dispatch in Virtual Power Plants under Uncertainty by Wei Jiang, Zhongkai Yi, Fangquan Lin, Hanwei Zhang and Cheng Yang

11:15am - 11:30am

Continually-Adaptive Representation Learning Framework for Time-Sensitive Healthcare Applications by Akash Choudhuri, Hankyu Jang, Alberto M. Segre, Philip M. Polgreen, Kishlay Jha and Bijaya Adhikari

11:30am - 11:45am

pADR: Towards Personalized Adverse Drug Reaction Prediction by Modeling Multi-sourced Data by Junyu Luo, Cheng Qian, Xiaochen Wang, Lucas Glass and Fenglong Ma

### 11:45am - 12:00pm PRODIGY: Product Design Guidance at Scale by Sambeet Tiady, Anirban Majumder and Deepak Gupta

### 12:00pm - 12:15pm

LittleMu: Deploying an Online Virtual Teaching Assistant via Heterogeneous Sources Integration and Chain of Teach Prompts by Shangqing Tu, Zheyuan Zhang, Jifan Yu, Chunyang Li, Siyu Zhang, Zijun Yao, Lei Hou and Juanzi Li

12:15pm - 12:30pm

Generating Optimized Molecules without Patent Infringement by Shangqing Tu, Zheyuan Zhang, Jifan Yu, Chunyang Li, Siyu Zhang, Zijun Yao, Lei Hou and Juanzi Li

### Session 4B - Sequence Modelling 3 - Belmont 1

### Chair - Bowei He, City University of Hong Kong

10:30am - 10:45am

Communication-Efficient Decentralized Online Continuous DR-Submodular Maximization by Qixin Zhang, Zengde Deng, Xiangru Jian, Zaiyi Chen, Haoyuan Hu and Yu Yang

### 10:45am - 11:00am

Dually Enhanced Delayed Feedback Modeling for Streaming Conversion Rate Prediction by Sunhao Dai, Yuqi Zhou, Jun Xu and Ji-Rong Wen

### 11:00am - 11:15am

DuoGAT: Dual Time-oriented Graph Attention Networks for Accurate, Efficient and Explainable Anomaly Detection on Timeseries by Jongsoo Lee, Byeongtae Park and Dong-Kyu Chae

11:15am - 11:30am

Dynamic Embedding Size Search with Minimum Regret for Streaming Recommender System by Bowei He, Xu He, Renrui Zhang, Yingxue Zhang, Ruiming Tang and Chen Ma

11:30am - 11:45am HyperBandit: Contextual Bandit with Hypernewtork for Time-Varying User Preferences in Streaming Recommendation by Chenglei Shen, Xiao Zhang, Wei Wei and Jun Xu

11:45am - 12:00pm

Representation Learning in Continuous-Time Dynamic Signed Networks by Kartik Sharma, Mohit Raghavendra, Yeon-Chang Lee, Anand Kumar M and Srijan Kumar

12:00pm - 12:15pm Time-series Shapelets with Learnable Lengths by Akihiro Yamaguchi, Ken Ueno and Hisashi Kashima

### Session 4C - Graph Learning 3 - Belmont 2

### Chair - Wenzhuo Tang, Michigan State University

10:30am - 10:45am

Node-dependent Semantic Search over Heterogeneous Graph Neural Networks by Zhenyi Wang, Huan Zhao, Fengqi Liang and Chuan Shi

10:45am - 11:00am Cross-heterogeneity Graph Few-shot Learning by Pengfei Ding, Yan Wang and Guanfeng Liu

11:00am - 11:15am Homophily-enhanced Structure Learning for Graph Clustering by Ming Gu, Gaoming Yang, Sheng Zhou, Ning Ma, Jiawei Chen, Qiaoyu Tan, Meihan Liu and Jiajun Bu

11:15am - 11:30am

Multi-Order Relations Hyperbolic Fusion for Heterogeneous Graphs by Junlin Li, Yueheng Sun and Minglai Shao

11:30am - 11:45am MUSE: Multi-View Contrastive Learning for Heterophilic Graphs via Information Reconstruction by Mengyi Yuan, Minjie Chen and Xiang Li

11:45am - 12:00pm SplitGNN: Spectral Graph Neural Network for Fraud Detection against Heterophily by Bin Wu, Xinyu Yao, Boyan Zhang, Kuo-Ming Chao and Yinsheng Li

12:00pm - 12:15pm Unveiling the Role of Message Passing in Dual-Privacy Preservation on GNNs by Tianyi Zhao, Hui Hu and Lu Cheng

### Session 4D - Health Informatics 1 - Belmont 3

Chair - Sriparna Saha

10:30am - 10:45am CFOM: Lead Optimization For Drug Discovery With Limited Data by Natan Kaminsky, Uriel Singer and Kira Radinsky

10:45am - 11:00am Experience and Evidence are the Eyes of an Excellent Summarizer! Towards Knowledge Infused Multi-modal Clinical Conversation Summarization by Abhisek Tiwari, Anisha Saha, Sriparna Saha, Pushpak Bhattacharyya and Minakshi Dhar

11:00am - 11:15am Multi-scale Graph Pooling Approach with Adaptive Key Subgraph for Graph Representations by Yiqin Lv, Zhiliang Tian, Zheng Xie and Yiping Song

11:15am - 11:30am

REST: Drug-Drug Interaction Prediction via Reinforced Student-Teacher Curriculum Learning by Xinhang Li, Zhaopeng Qiu, Xiangyu Zhao, Yong Zhang, Chunxiao Xing and Xian Wu

11:30am - 11:45am

Towards Automatic ICD Coding via Knowledge Enhanced Multi-Task Learning by Xinhang Li, Xiangyu Zhao, Yong Zhang and Chunxiao Xing

### Session 4E - Social Media 1 - Meeting Room 2

### Chair - Francesco Fabbri

10:30am - 10:45am

Co-guided RandomWalk for Polarized Communities Search by Fanyi Yang, Huifang Ma, Cairui Yan, Zhixin Li and Liang Chang

10:45am - 11:00am

Generalization Bound for Estimating Causal Effects from Observational Network Data by Ruichu Cai, Zeqin Yang, Weilin Chen, Yuguang Yan and Zhifeng Hao

11:00am - 11:15am GraphERT-- Transformers-based Temporal Dynamic Graph Embedding by Moran Beladev, Gilad Kats, Lior Rokach, Uriel Singer and Kira Radinsky

11:15am - 11:30am HiPo: Detecting Fake News via Historical and Multi-Modal Analyses of Social Media Posts by Tianshu Xiao, Sichang Guo, Jingcheng Huang, Riccardo Spolaor and Xiuzhen Cheng

11:30am - 11:45am Rebalancing Social Feed to Minimize Polarization and Disagreement by Federico Cinus, Aristides Gionis and Francesco Bonchi 11:45am - 12:00pm PCENet: Psychological Clues Exploration Network for Multimodal Personality Assessment by Yangfu Zhu, Yuting Wei, Meiling Li, Tingting Zhang, Siqi Wei and Bin Wu

12:00pm - 12:15pm

THGNN: An Embedding-based Model for Anomaly Detection in Dynamic Heterogeneous Social Networks by Yilin Li, Jiaqi Zhu, Congcong Zhang, Yi Yang, Jiawen Zhang, Ying Qiao and Hongan Wang

### Session 4F - Recommendation 4 - Ashtead 1

Chair - Min Zhang

*10:30am - 10:45am* Diversity-aware Deep Ranking Network for Recommendation by Zihong Wang, Yingxia Shao, Jiyuan He, Jinbao Liu, Shitao Xiao, Tao Feng and Ming Liu

10:45am - 11:00am FVW: Finding Valuable Weight on Deep Neural Network for Model Pruning by Zhiyu Zhu, Huaming Chen, Zhibo Jin, Xinyi Wang, Jiayu Zhang, Minhui Xue, Qinghua Lu, Jun Shen and Kim-Kwang Raymond Choo

11:00am - 11:15am Hybrid Contrastive Constraints for Multi-Scenario Ad Ranking by Shanlei Mu, Penghui Wei, Wayne Xin Zhao, Shaoguo Liu, Liang Wang and Bo Zheng

11:15am - 11:30am Multi-domain Recommendation with Embedding Disentangling and Domain Alignment by Wentao Ning, Xiao Yan, Weiwen Liu, Reynold Cheng, Rui Zhang and Bo Tang

11:30am - 11:45am

Retrieving GNN Architecture for Collaborative Filtering by Fengqi Liang, Huan Zhao, Zhenyi Wang, Wei Fang and Chuan Shi

*11:45am - 12:00pm* Text Matching Improves Sequential Recommendation by Reducing Popularity Biases by Zhenghao Liu, Sen Mei, Chenyan Xiong, Xiaohua Li, Shi Yu, Zhiyuan Liu, Yu Gu and Ge Yu

12:00pm - 12:15pm

Zero-shot Item-based Recommendation via Multi-task Product Knowledge Graph Pre-Training by Ziwei Fan, Zhiwei Liu, Shelby Heinecke, Jianguo Zhang, Huan Wang, Caiming Xiong and Philip S. Yu

Session 4G - Privacy and Security 2 - Ashtead 2

Chair - Yuta Nakamura, DePaul University

10:30am - 10:45am

Calibrate Graph Neural Networks under Out-of-Distribution Nodes via Deep Q-learning by Weili Shi, Xueying Yang, Xujiang Zhao, Haifeng Chen, Zhiqiang Tao and Sheng Li

10:45am - 11:00am FedPSE: Personalized Sparsification with Element-wise Aggregation for Federated Learning by Longfei Zheng, Yingting Liu, Xiaolong Xu, Chaochao Chen, Yuzhou Tang, Lei Wang and Xiaolong Hu

11:00am - 11:15am Manipulating Out-Domain Uncertainty Estimation in Deep Neural Networks via Targeted Clean-Label Poisoning by Huimin Zeng, Zhenrui Yue, Yang Zhang, Lanyu Shang and Dong Wang

11:15am - 11:30am

Non-IID always Bad? Semi-Supervised Heterogeneous Federated Learning with Local Knowledge Enhancement by Chao Zhang, Fangzhao Wu, Jingwei Yi, Derong Xu, Yang Yu, Jindong Wang, Yidong Wang, Tong Xu, Xing Xie and Enhong Chen

11:30am - 11:45am

Privacy-Preserving Federated Learning via Disentanglement by Wenjie Zhou, Piji Li, Zhaoyang Han, Xiaozhen Lu, Juan Li, Zhaochun Ren and Zhe Liu

11:45am - 12:00pm PSLF: Defending Against Label Leakage in Split Learning by Xinwei Wan, Jiankai Sun, Shengjie Wang, Lei Chen, Zhenzhe Zheng, Fan Wu and Guihai Chen

12:00pm - 12:15pm Single-User Injection for Invisible Shilling Attack against Recommender Systems by Chengzhi Huang and Hui Li

### Session 4H - Knowledge Extraction - Ashtead 3

### Chair - Kailai Yang, The University of Manchester

10:30am - 10:45am A Retrieve-and-Read Framework for Knowledge Graph Link Prediction by Vardaan Pahuja, Boshi Wang, Hugo Latapie, Jayanth Srinivasa and Yu Su

10:45am - 11:00am AspectMMKG: A Multi-modal Knowledge Graph with Aspect-aware Entities by Jingdan Zhang, Jiaan Wang, Xiaodan Wang, Zhixu Li and Yanghua Xiao

11:00am - 11:15am DebCSE: Rethinking Unsupervised Contrastive Sentence Embedding Learning in the Debiasing Perspective by Pu Miao, Zeyao Du and Junlin Zhang

11:15am - 11:30am Hadamard Adapter: An Extreme Parameter-Efficient Adapter Tuning Method for Pre-trained Language Models by Yuyan Chen, Qiang Fu, Ge Fan, Lun Du, Jian-Guang Lou, Shi Han, Zhixu Li, Yanghua Xiao and Dongmei Zhang 11:30am - 11:45am HEProto: A Hierarchical Enhancing ProtoNet based on Multi-Task Learning for Few-shot Named Entity Recognition by Wei Chen, Lili Zhao, Pengfei Luo, Tong Xu, Yi Zheng and Enhong Chen

11:45am - 12:00pm

Task Relation Distillation and Prototypical Pseudo Label for Incremental Named Entity Recognition by Duzhen Zhang, Hongliu Li, Wei Cong, Rongtao Xu, Jiahua Dong and Xiuyi Chen

12:00pm - 12:15pm Unsupervised Aspect Term Extraction by Integrating Sentence-level Curriculum Learning with Token-level Self-paced Learning by Jihong Ouyang, Zhiyao Yang, Chang Xuan, Bing Wang, Yiyuan Wang and Ximing Li

Lunch Break and Posters/ Demos - Affinity 1 12:30pm - 2:00pm

Session 5 - 2:00pm - 3:30pm

Session 5A - Knowledge Representation 2 - Affinity 2

Chair - Ming Zhou, Tsinghua University

2:00pm - 2:15pm A Uniform Interpolation-based Method for Creating Signature-Based Views of EL-Ontologies by Yizheng Zhao

2:15pm - 2:30pm

Citation Intent Classification and Its Supporting Evidence Extraction for Citation Graph Construction by Hong-Jin Tsai, An-Zi Yen, Hen-Hsen Huang and Hsin-Hsi Chen

2:30pm - 2:45pm HTMapper: Bidirectional Head-Tail Mapping for Nested Named Entity Recognition by Jin Zhao, Zhixu Li, Yanghua Xiao, Jiaqing Liang and Jingping Liu

2:45pm - 3:00pm MGICL: Multi-Grained Interaction Contrastive Learning for Multimodal Named Entity Recognition by Aibo Guo, Xiang Zhao, Zhen Tan and Weidong Xiao

3:00pm - 3:15pm Relevant Entity Selection: Knowledge Graph Bootstrapping via Zero-Shot Analogical Pruning by Lucas Jarnac, Miguel Couceiro and Pierre Monnin

*3:15pm - 3:30pm* UrbanFloodKG: An Urban Flood Knowledge Graph System for Risk Assessment by Yu Wang, Feng Ye, Binquan Li, Gaoyang Jin, Dong Xu and Fengsheng Li

### Session 5B - Videos & Music & Spatio-temporal & Crowd - Belmont 1

## Chair - Apoorva Singh, Indian Institute of Technology Patna

*2:00pm - 2:15pm* AutoBuild: Automatic Community Building Labeling for Last-mile Delivery by Zhiqing Hong, Dongjiang Cao, Haotian Wang, Guang Wang, Tian He and Desheng Zhang

2:15pm - 2:30pm Enhancing Dynamic On-demand Food Order Dispatching through Future-informed and Spatial-temporal Extended Decisions by Yile Liang, Donghui Li, Jiuxia Zhao, Xuetao Ding, Huanjia Lian, Jinghua Hao and Renqing He

2:30pm - 2:45pm Exploiting Sequential Music Preferences via Optimisation-Based Sequencing by Dmitrii Moor, Yi Yuan, Rishabh Mehrotra,

#### Zhenwen Dai and Mounia Lalmas

2:45pm - 3:00pm Urban-scale POI Updating with Crowd Intelligence by Zhiqing Hong, Haotian Wang, Wenjun Lyu, Hai Wang, Yunhuai Liu, Guang Wang, Tian He and Desheng Zhang

#### 3:00pm - 3:15pm

Learning and Optimization of Implicit Negative Feedback for Industrial Short-video Recommender System by Yunzhu Pan, Nian Li, Chen Gao, Jianxin Chang, Yanan Niu, Yang Song, Depeng Jin and Yong Li

3:15pm - 3:30pm

Towards understanding deepfake videos in the wild by Beomsang Cho, Binh M. Le, Jiwon Kim, Simon Woo, Kristen Moore, Shahroz Tariq and Alsharif Abuadbba

#### Session 5C - Networks and Content Generation - Belmont 2

### Chair - Kenneth Church

2:00pm - 2:15pm

CTCam: Enhancing Transportation Evaluation through Fusion of Cellular Traffic and Camera-Based Vehicle Flows by ChungYi Lin, Shen-Lung Tung, Hung-Ting Su and Winston H. Hsu

2:15pm - 2:30pm PGB: A PubMed Graph Benchmark for Heterogeneous Network Representation Learning by Eric Lee and Joyce Ho

2:30pm - 2:45pm

OpenGDA: Graph Domain Adaptation Benchmark for Cross-network Learning by Boshen Shi, Yongqing Wang, Fangda Guo, Jiangli Shao, Huawei Shen and Xueqi Cheng

2:45pm - 3:00pm

Datasets and Interfaces for Benchmarking Heterogeneous Graph Neural Networks by Yijian Liu, Hongyi Zhang, Cheng Yang, Ao Li, Yugang Ji, Luhao Zhang, Tao Li, Jinyu Yang, Tianyu Zhao, Juan Yang, Hai Huang and Chuan Shi

3:00pm - 3:15pm ContributionSum: Generating Disentangled Contributions for Scientific Papers by Meng-Huan Liu, An-Zi Yen, Hen-Hsen Huang and Hsin-Hsi Chen

3:15pm - 3:30pm

A Test Collection of Synthetic Documents for Training Rankers: ChatGPT vs. Human Experts by Arian Askari, Mohammad Aliannejadi, Evangelos Kanoulas and Suzan Verberne

### Session 5D - Data Quality 1 - Belmont 3

#### **Chair - Charles Nicholas**

2:00pm - 2:15pm Automatic and Precise Data Validation for Machine Learning by Shreya Shankar, Labib Fawaz, Karl Gyllstrom and Aditya Parameswaran

2:15pm - 2:30pm CANA: Causal-enhanced Social Network Alignment by Jiangli Shao, Yongqing Wang, Fangda Guo, Boshen Shi, Huawei Shen and Xueqi Cheng

2:30pm - 2:45pm Graph Inference via the Energy-efficient Dynamic Precision Matrix Estimation with One-Bit Data by Xiao Tan, Yangyang Shen, Meng Wang and Beilun Wang

2:45pm - 3:00pm SAND: Semantic Annotation of Numeric Data in Web Tables by Yuchen Su, Davood Rafiei and Behrad Khorram Nazari

3:00pm - 3:15pm

Selecting Top-K Data Science Models by Example Dataset by Mengying Wang, Sheng Guan, Hanchao Ma, Yiyang Bian, Haolai Che, Yinghui Wu, Abhishek Daundkar and Alp Sehirlioglu

3:15pm - 3:30pm

Unlocking the Potential of Non-PSD Kernel Matrices: A Polar Decomposition-based Transformation for Improved Prediction Models by Maximilian Münch, Manuel Röder and Frank-Michael Schleif

### Session 5E - Computer Vision 2 - Meeting Room 2

### Chair - Yunzhong Lou, Fudan University

2:00pm - 2:15pm

BRep-BERT: Pre-training Boundary Representation BERT with Sub-graph Node Contrastive Learning by Yunzhong Lou, Xueyang Li, Haotian Chen and Xiangdong Zhou

2:15pm - 2:30pm

Deep Variational Bayesian Modeling of Haze Degradation Process by Eun-Woo Im, Junsung Shin, Sungyong Baik and Tae Hyun Kim

2:30pm - 2:45pm Exploring Low-Dimensional Manifolds of Deep Neural Network Parameters for Improved Model Optimization by Ke Lu, Xiaotong He, Ze Qin, Xinyao Li and Zhekai Du

2:45pm - 3:00pm Measuring the Effect of Causal Disentanglement on the Adversarial Robustness of Neural Network Models by Preben Monteiro Ness, Dusica Marijan and Sunanda Bose

3:00pm - 3:15pm

MultiCAD: Contrastive Representation Learning for Multi-modal 3D Computer-Aided Design Models by Weijian Ma, Minyang Xu, Xueyang Li and Xiangdong Zhou

### Session 5F - Recommendation 5 - Ashtead 1

### Chair - Rodrygo Santos

2:00pm - 2:15pm Attention Calibration for Transformer-based Sequential Recommendation by Peilin Zhou, Qichen Ye, Yueqi Xie, Jingqi Gao, Shoujin Wang, Jaeboum Kim, Chenyu You and Sunghun Kim

2:15pm - 2:30pm

Cracking the Code of Negative Transfer: A Cooperative Game Theoretic Approach for Cross-Domain Sequential Recommendation by Chung Park, Taesan Kim, Taekyoon Choi, Junui Hong, Yelim Yu, Mincheol Cho, Kyunam Lee, Sungil Ryu, Hyungjun Yoon, Minsung Choi and Jaegul Choo

2:30pm - 2:45pm Multi-modal Mixture of Experts Representation Learning for Sequential Recommendation by Shuqing Bian, Xingyu Pan, Xin Zhao, Jinpeng Wang, Chuyuan Wang and Ji-Rong Wen

2:45pm - 3:00pm Parallel Knowledge Enhancement based Framework for Multi-behavior Recommendation by Chang Meng, Chenhao Zhai, Yu Yang, Hengyu Zhang and Xiu Li

*3:00pm - 3:15pm* Robust Within-basket Recommendation via Noise-tolerated Contrastive Learning by Xinrui He, Tianxin Wei and Jingrui He

3:15pm - 3:30pm

SMEF: Social-aware Multi-dimensional Edge Features-based Graph Representation Learning for Recommendation by Xiao Liu, Shunmei Meng, Qianmu Li, Lianyong Qi, Xiaolong Xu, Wanchun Dou and Xuyun Zhang

### Session 5G - Sequence Modelling 4 - Ashtead 2

#### Chair - Wei Ding, UMass Boston

2:00pm - 2:15pm Density-Aware Temporal Attentive Step-wise Diffusion Model For Medical Time Series Imputation by Jingwen Xu, Pong C Yuen and Fei Lyu

2:15pm - 2:30pm Diffusion Variational Autoencoder for Tackling Stochasticity in Multi-Step Regression Stock Price Prediction by Kelvin Koa, Yunshan Ma, Ritchie Ng and Tat-Seng Chua

2:30pm - 2:45pm Enhancing Repeat-Aware Recommendation from a Temporal-Sequential Perspective by Shigang Quan, Shui Liu, Zhenzhe Zheng and Fan Wu

2:45pm - 3:00pm MadSGM: Multivariate Anomaly Detection with Score-based Generative Models by Haksoo Lim, Sewon Park, Minjung Kim, Jaehoon Lee, Seonkyu Lim and Noseong Park

3:00pm - 3:15pm

MemDA: Forecasting Urban Time Series with Memory-based Drift Adaptation by Zekun Cai, Renhe Jiang, Xinyu Yang, Zhaonan Wang, Diansheng Guo, Hiroki Kobayashi, Xuan Song and Ryosuke Shibasaki

#### Session 5H - Natural Language 2 - Ashtead 3

Chair - Gabriella Kazai, Amazon

2:00pm - 2:15pm

Bias Invariant Approaches for Improving Word Embedding Fairness by Siyu Liao, Ringting Zhang, Barbara Poblete and Vanessa Murdock

2:15pm - 2:30pm HCL4QC: Incorporating Hierarchical Category Structures Into Contrastive Learning for E-commerce Query Classification by Lvxing Zhu, Kexin Zhang, Hao Chen, Chao Wei, Weiru Zhang, Haihong Tang and Xiu Li

2:30pm - 2:45pm MultiPLe: Multilingual Prompt Learning for Relieving Semantic Confusions in Few-shot Event Detection by Siyuan Wang, Jianming Zheng, Wanyu Chen, Fei Cai and Xueshan Luo

2:45pm - 3:00pm On the Thresholding Strategy for Rare Labels in Multi-label Classification by Yu-Jen Lin and Chih-Jen Lin

3:00pm - 3:15pm

Relevance-based Infilling for Natural Language Counterfactuals by Lorenzo Betti, Carlo Abrate, Francesco Bonchi and Andreas Kaltenbrunner

Refreshment Break - Affinity 1 3:30pm - 4:00pm

Session 6 - 4:00pm - 5:30pm

Session 6A - User Modelling 2 - Affinity 2

Sherry Sahebi, SUNY Albany

4:00pm - 4:15pm

Counterfactual Monotonic Knowledge Tracing for Assessing Students' Dynamic Mastery of Knowledge Concepts by Moyu

Zhang, Xinning Zhu, Chunhong Zhang, Wenchen Qian, Feng Pan and Hui Zhao

*4:15pm - 4:30pm* Designing and Evaluating Presentation Strategies for Fact-Checked Content by Danula Hettiachchi, Kaixin Ji, Jenny Kennedy, Anthony McCosker, Flora Salim, Mark Sanderson, Falk Scholer and Damiano Spina

4:30pm - 4:45pm

Investigating the Impact of Multimodality and External Knowledge in Aspect-level Complaint and Sentiment Analysis by Apoorva Singh, Apoorv Verma, Raghav Jain and Sriparna Saha

*4:45pm - 5:00pm* Minimizing Polarization in Noisy Leader-Follower Opinion Dynamics by Wanyue Xu and Zhongzhi Zhang

5:00pm - 5:15pm

No Length Left Behind: Enhancing Knowledge Tracing for Modeling Sequences of Excessive or Insufficient Lengths by Moyu Zhang, Xinning Zhu, Chunhong Zhang, Feng Pan, Wenchen Qian and Hui Zhao

5:15pm - 5:30pm

Search-Efficient Computerized Adaptive Testing by Yuting Hong, Shiwei Tong, Wei Huang, Yan Zhuang, Qi Liu, Enhong Chen, Xin Li and Yuanjing He

Session 6B - Retrieval/Search/Ranking - Belmont 1

**Chair - Stefan Heindorf** 

4:00pm - 4:15pm

Regression Compatible Listwise Objectives for Calibrated Ranking by Aijun Bai, Rolf Jagerman, Zhen Qin, Le Yan, Pratyush Kar, Bing-Rong Lin, Xuanhui Wang, Michael Bendersky and Marc Najork

4:15pm - 4:30pm

An Efficient Content-based Time Series Retrieval System by Chin-Chia Michael Yeh, Huiyuan Chen, Xin Dai, Yan Zheng, Junpeng Wang, Vivian Lai, Yujie Fan, Audrey Der, Zhongfang Zhuang, Liang Wang, Wei Zhang and Jeff Phillips

### 4:30pm - 4:45pm Deep Query Rewriting For Geocoding by Pravakar Roy, Chirag Sharma, Chao Gao and Kumarswamy Valegerepura

*4:45pm - 5:00pm* Unsupervised Multi-Modal Representation Learning for High Quality Retrieval of Similar Products at E-commerce Scale by Kushal Kumar, Tarik Arici, Tal Neiman, Jinyu Yang, Shioulin Sam, Yi Xu, Hakan Ferhatosmanoglu and Ismail Tutar

5:00pm - 5:15pm MArBLE: Hierarchical Multi-Armed Bandit for Human-in-the-Loop Lexicon Expansion by Muntasir Wahed, Daniel Gruhl and Ismini Lourentzou

### Session 6C - Search and Health - Belmont 2

Chair - Boshen Shi

4:00pm - 4:15pm MUSER: A Multi-View Similar Case Retrieval Dataset by Qingquan Li, Yiran Hu, Feng Yao, Chaojun Xiao, Zhiyuan Liu, Maosong Sun and Weixing Shen

4:15pm - 4:30pm KuaiSAR: A Unified Search And Recommendation Dataset by Zhongxiang Sun, Zihua Si, Xiaoxue Zang, Dewei Leng, Yanan Niu, Yang Song, Xiao Zhang and Jun Xu

*4:30pm - 4:45pm* RePair: An Extensible Toolkit to Generate Large-Scale Datasets via Transformers for Query Refinement by Yogeswar Lakshmi Narayanan and Hossein Fani

4:45pm - 5:00pm

ClinicalRisk: A New Therapy-related Clinical Trial Dataset for Predicting Trial Status and Failure Reasons by Junyu Luo, Zhi Qiao, Lucas Glass, Cao Xiao and Fenglong Ma

5:00pm - 5:15pm

ThyExp: An explainable AI-assisted Decision Making Toolkit for Thyroid Nodule Diagnosis based on Ultra-sound Images by Huizhi Liang, Jamie Morris, Zehao Liu, Sidhartha Nagala and Xia Hong

5:15pm - 5:30pm

TEI2GO: A Multilingual Approach for Fast Temporal Expression Identification by Hugo Sousa, Ricardo Campos and Alipio M. Jorge

### Session 6D - Sequence Modelling 5 - Belmont 3

### Chair - Shengzhong Mao, University of Manchester

4:00pm - 4:15pm

Beyond Trading Data: The Hidden Influence of Public Awareness and Interest on Cryptocurrency Volatility by Zeyd Boukhers, Azeddine Bouabdallah, Cong Yang and Jan Jürjens

*4:15pm - 4:30pm* DSformer: A Double Sampling Transformer for Multivariate Time Series Long-term Prediction by Chengqing Yu, Fei Wang, Zezhi Shao, Tao Sun, Lin Wu and Yongjun Xu

*4:30pm - 4:45pm* GCformer: An Efficient Solution for Accurate and Scalable Long-Term Multivariate Time Series Forecasting by Yanjun Zhao, Ziqing Ma, Tian Zhou, Mengni Ye, Liang Sun and Yi Qian

*4:45pm - 5:00pm* Modeling Context-Aware Temporal Dynamics via Pseudo-Multi-Task Learning by Qingtian Bian, Jiaxing Xu, Hui Fang and

### Yiping Ke

*5:00pm - 5:15pm* Spatial-Temporal-Aware Meta Graph Contrastive Learning by Jiabin Tang, Lianghao Xia, Jie Hu and Chao Huang

#### Session 6E - Recommendation 6 - Meeting Room 2

### Chair - Zhaochun Ren, Leiden University

4:00pm - 4:15pm Celebrity-aware Graph Contrastive Learning Framework for Social Recommendation by Zheng Hu, Satoshi Nakagawa, Liang Luo, Yu Gu and Fuji Ren

4:15pm - 4:30pm Dual Intents Graph Modeling for User-centric Group Discovery by Xixi Wu, Yun Xiong, Yao Zhang, Yizhu Jiao and Jiawei Zhang

*4:30pm - 4:45pm* Improving Long-Tail Item Recommendation Performance with Graph Augmentation by Sichun Luo, Chen Ma, Yuanzhang Xiao and Linqi Song

*4:45pm - 5:00pm* Quad-Tier Entity Fusion Contrastive Representation Learning for Knowledge Aware Recommendation System by Rongqing Kenneth Ong, Wei Qiu and Andy W.H. Khong

*5:00pm - 5:15pm* Targeted Shilling Attacks on GNN-based Recommender Systems by Sihan Guo, Ting Bai and Weihong Deng

5:15pm - 5:30pm

Toward a Better Understanding of Loss Functions for Collaborative Filtering by Seongmin Park, Mincheol Yoon, Jae-woong Lee, Hogun Park and Jongwuk Lee

Session 6F - Mitigating Biases 1 - Ashtead 1

### **Chair - Ludovico Boratto**

*4:00pm - 4:15pm* A Mix-up Strategy to Enhance Adversarial Training with Imbalanced Data by Wentao Wang, Harry Shomer, Yuxuan Wan, Yaxin Li, Jiangtao Huang and Hui Liu

*4:15pm - 4:30pm* Al in the Gray: Exploring Moderation Policies in Dialogic Large Language Models vs. Human Answers in Controversial Topics by Vahid Ghafouri, Vibhor Agarwal, Yong Zhang, Nishanth Sastry, Jose Such and Guillermo Suarez-Tangil

*4:30pm - 4:45pm* An Efficient Selective Ensemble Learning with Rejection Approach for Classification by Hao Xu and Chiranjeet Chetia

*4:45pm - 5:00pm* Disparity, Inequality, and Accuracy Tradeoffs in Graph Neural Networks for Node Classification by Arpit Merchant and Carlos Castillo

*5:00pm - 5:15pm* Fair&Share: Fast and Fair Multi-Criteria Selections by Kathleen Cachel and Elke Rundensteiner

5:15pm - 5:30pm Towards Fair Financial Services for All: A Temporal GNN Approach for Individual Fairness on Transaction Networks by Zixing Song, Yuji Zhang and Irwin King

#### Session 6G - Knowledge Representation 3 - Ashtead 2

#### Chair - Sukwon Yun, KAIST

*4:00pm - 4:15pm* NeoMaPy: A Framework for Computing MAP Inference on Temporal Knowledge Graphs by Victor David, Raphaël Fournier-S'Niehotta and Nicolas Travers

*4:15pm - 4:30pm* Group Identification via Transitional Hypergraph Convolution with Cross-view Self-supervised Learning by Mingdai Yang, Zhiwei Liu, Liangwei Yang, Xiaolong Liu, Chen Wang, Hao Peng and Philip S. Yu

4:30pm - 4:45pm

HyperFormer: Enhancing Entity and Relation Interaction for Hyper-Relational Knowledge Graph Completion by Zhiwei Hu, Victor Gutierrez Basulto, Zhiliang Xiang, Ru Li and Jeff Z. Pan

4:45pm - 5:00pm

Self-Supervised Dynamic Hypergraph Recommendation based on Hyper-Relational Knowledge Graph by Yi Liu, Hongrui Xuan, Bohan Li, Meng Wang, Tong Chen and Hongzhi Yin

5:00pm - 5:15pm

Semantic-aware Node Synthesis for Imbalanced Heterogeneous Information Networks by Xinyi Gao, Wentao Zhang, Tong Chen, Junliang Yu, Quoc Viet Hung Nguyen and Hongzhi Yin

Session 6H - Health Informatics 2 - Ashtead 3

Chair - Joan Giner-Miguelez - Open University of Catalonia

4:00pm - 4:15pm

Enabling Health Data Sharing with Fine-Grained Privacy by Luca Bonomi, Sepand Gousheh and Liyue Fan

*4:15pm - 4:30pm* Enhanced Template-Free Reaction Prediction with Molecular Graphs and Sequence-based Data Augmentation by Haozhe Hu, Yongquan Jiang, Yan Yang and Jim X. Chen

*4:30pm - 4:45pm* Federated Competing Risk Analysis by Md Mahmudur Rahman and Sanjay Purushotham

*4:45pm - 5:00pm* Geometric Graph Learning for Protein Mutation Effect Prediction by Kangfei Zhao, Yu Rong, Biaobin Jiang, Jianheng Tang, Hengtong Zhang, Jeffrey Xu Yu and Peilin Zhao

*5:00pm - 5:15pm* MPerformer: A SE(3) Transformer-based Molecular Perceptron by Fanmeng Wang, Xi Chen, Shuqi Lu, Yuqing Deng, Wenbing Huang and Hongteng Xu

Poster/ Demo - Affinity 1 5:30pm - 6:30pm

Conference Dinner - Villa Park 7:00pm - Midnight