

IAAI-19 Schedule

Tuesday, January 29

10:25 - 11:25

E-commerce and Retail

Session Chair: Karen Haigh

86: Context-Tree Recommendation vs Matrix-Factorization: Algorithm Selection and Live Users Evaluation

Stéphane Martin, Boi Faltings, Vincent Schickel

17: Enhancing Evolutionary Conversion Rate Optimization via Multi-Armed Bandit Algorithms

Xin Qiu, Risto Miikkulainen

21: Automatic Generation of Chinese Short Product Titles for Mobile Display

Yu Gong, Xusheng Luo, Kenny Q. Zhu, Wenwu Ou, Zhao Li, Lu Duan

105: Robust Multi-Object Detection Based on Data Augmentation with Realistic Image Synthesis for Point-of-Sale Automation

Saiprasad Koturwar, Soma Shiraishi, Kota Iwamoto

11:30 - 12:30

Improving Interactions through NL and Dialog

Session Chair: Karen Myers

88: Querying NoSQL with Deep Learning to Answer Natural Language Questions

Sebastian Blank, Florian Wilhelm, Hans-Peter Zorn, Achim Rettinger

12: Probabilistic-Logic Bots for Efficient Evaluation of Business Rules Using Conversational Interfaces

Joseph Bockhorst, Devin Conathan, Glenn M. Fung

56: Bootstrapping Conversational Agents with Weak Supervision

Neil Mallinar, Abhishek Shah, Rajendra Ugrani, Ayush Gupta, Manikandan Gurusankar, Tin Kam Ho, Q. Vera Liao, Yunfeng Zhang, Rachel K. E. Bellamy, Robert Yates, Chris Desmarais, Blake McGregor

2:00 - 3:30

Medicine

Session Chair: Jose-Luis Ambite

10: Ensemble Machine Learning for Estimating Fetal Weight at Varying Gestational Age

Yu Lu, Xi Zhang, Xianghua Fu, Fangxiong Chen, Kelvin K. L. Wong

66: Building Trust in Deep Learning System towards Automated Disease Detection

Zhan Wei Lim, Mong Li Lee, Wynne Hsu, Tien Yin Wong

67: Feature Isolation for Hypothesis Testing in Retinal Imaging: An Ischemic Stroke Prediction Case Study

Gilbert Lim, Zhan Wei Lim, Dejiang Xu, Daniel S.W. Ting, Tien Yin Wong, Mong Li Lee, Wynne Hsu

80: Identifying Semantics in Clinical Reports Using Neural Machine Translation
Srikanth Mujjiga, Vamsi Krishna, Kalyan Chakravarthi, Vijayananda J

72: Separating Wheat from Chaff: Joining Biomedical Knowledge and Patient Data for Repurposing Medications

Galia Nordon, Gideon Koren, Varda Shalev, Eric Horvitz, Kira Radinsky

4:15 - 5:15

Robert S. Engelmores Memorial Award Lecture

Milind Tambe, University of Southern California

Introduced by Ashok Goel

Wednesday, January 30

10:25 - 11:25

Assistance via Analysis of Human-Generated Artifacts

Session Chair: Neil Jacobstein

111: A Genetic Algorithm for Finding a Small and Diverse Set of Recent News Stories on a Given Subject: How We Generate AAAI's AI-Alert (*Deployed*)

Joshua Eckroth, Eric Schoen

27: Automated Dispatch of Helpdesk Email Tickets: Pushing the Limits with AI (*Deployed*)

Atri Mandal, Nikhil Malhotra, Shivali Agarwal, Anupama Ray, Giriprasad Sridhara

89: Grading Uncompilable Programs (*Deployed*)

Rohit Takhar, Varun Aggarwal

11:30 - 12:30

Computer Systems and Software

Session Chair: Matthew Gaston

103: Leveraging Textual Specifications for Grammar-Based Fuzzing of Network Protocols

Samuel Jero, Maria Leonor Pacheco, Dan Goldwasser, Cristina Nita-Rotaru

53: A Machine Learning Suite for Machine Components' Health-Monitoring

Ramin M. Hasani, Guodong Wang, Radu Grosu

54: DeBGUer: A Tool for Bug Prediction and Diagnosis

Amir Elmishali, Roni Stern, Meir Kalech

14: Anomaly Detection Using Autoencoders in High Performance Computing Systems

Andrea Borghesi, Andrea Bartolini, Michele Lombardi, Michela Milano

2:00 - 3:30

Science

Session Chair: Kiri Wagstaff

77: Early-Stopping of Scattering Pattern Observation with Bayesian Modeling
Akinori Asahara, Hidekazu Morita, Chiharu Mitsumata, Kanta Ono, Masao Yano, Tetsuya Shoji

104: Novelty Detection for Multispectral Images with Application to Planetary Exploration
Hannah R. Kerner, Danika F. Wellington, Kiri L. Wagstaff, James F. Bell, Heni Ben Amor

125: Expert Guided Rule Based Prioritization of Scientifically Relevant Images for Downlinking over Limited Bandwidth from Planetary Orbiters
Srija Chakraborty, Subhasish Das, Ayan Banerjee, Sandeep K. S. Gupta¹, Philip R. Christensen

55: Cleaning Noisy and Heterogeneous Metadata for Record Linking across Scholarly Big Datasets
Athar Sefid, Jian Wu, Jing Zhao, Lu Liu, Cornelia Caragea, Prasenjit Mitra¹, C. Lee Giles

83: A Fast Machine Learning Workflow for Rapid Phenotype Prediction from Whole Shotgun Metagenomes
Anna Paola Carrieri, Will Rowe, Martyn Winn, Edward O. Pyzer-Knapp

3:35 – 4:35

Education

Session Chair: Kiri Wagstaff

75: eRevise: Using Natural Language Processing to Provide Formative Feedback on Text Evidence Usage in Student Writing

H. Zhang, A. Magooda, D. Litman, R. Correnti, E. Wang, L. C. Matsmura, E. Howe, R. Quintana

121: Linking Educational Resources on Data Science

José Luis Ambite, Jonathan Gordon, Lily Fierro, Gully Burns, Joel Mathew

16: Inferring Concept Prerequisite Relations from Online Educational Resources

Sudeshna Roy, Meghana Madhyastha, Sheril Lawrence, Vaibhav Rajan

Thursday, January 31

8:40 – 9:40

Joint AAAI/IAAI Plenary Talk

Yu Zheng, JD Group

Introduction by

10:25 - 11:25

Transportation and Navigation

Session Chair: Eric Schoen

110: Tagging Address Queries in Maps Search

Shekoofeh Mokhtari, Ahmad Mahmoudy, Dragomir Yankov, Ning Xie

19: Early Detection of Vacant Parking Spaces Using Dashcam Videos

Ming-Che Wu, Mei-Chen Yeh

128: VPDS: An AI-Based Automated Vehicle Occupancy and Violation Detection System

Abhinav Kumar, Aishwarya Gupta, Bishal Santra, Lalitha KS, Manasa Kolla, Mayank Gupta, Rishabh Singh

11:30 - 12:30

Defence, Security, and Privacy

Session Chair: Karen Haigh

47: Satellite Detection of Moving Vessels in Marine Environments
Natalie Fridman, Doron Amir, Yinon Douchan, Noa Agmon

102: Profiles, Proxies, and Assumptions: Decentralized, Communications-Resilient Planning, Allocation, and Scheduling

Ugur Kuter, Brian Kettler, Katherine Guo, Martin Hofmann, Valerie Champagne, Kurt Lachevet

113: Logistic Regression on Homomorphic Encrypted Data at Scale
Kyoohyung Han, Seungwan Hong, Jung Hee Cheon, Daejun Park

62: Remote Management of Boundary Protection Devices with Information Restrictions
Aaron Adler, Peter Samouelian, Michael Atighetchi, Yat Fu

2:00 - 3:30

Insurance and Finance

Session Chair: Ted Senator

97: Discovering Temporal Patterns from Insurance Interaction Data
Maleeha Qazi, Srinivas Tunuguntla, Peng Lee, Teja Kanchinadam, Glenn Fung, Neeraj Arora

40: Transforming Underwriting in the Life Insurance Industry (*Deployed*)
Marc Maier, Hayley Carlotto, Freddie Sanchez, Sherriff Balogun, Sears Merritt

95: Artificial Counselor System for Stock Investment
Hadi NekoeiQachkanloo, Benyamin Ghogh, Ali Saheb Pasand, Mark Crowley

134: Large Scale Personalized Categorization of Financial Transactions (*Deployed*)
Christopher Lesner, Alexander Ran, Marko Rukonic, Wei Wang

4:15 - 5:15

Forecasting

Session Chair: Ugur Kuter

38: Amsterdam to Dublin Eventually Delayed? LSTM and Transfer Learning for Predicting Delays of Low Cost Airlines
Nicholas McCarthy, Mohammad Karzand, Freddy Lecue

119: DEFSI: Deep Learning Based Epidemic Forecasting with Synthetic Information
Lijing Wang, Jiangzhuo Chen, Madhav Marathe

131: Forecasting Intra-Hour Imbalances in Electric Power Systems
Tárik S. Salem, Karan Kathuria, Heri Ramampiaro, Helge Langseth