# Agenda - Computing Conference 2024

11-12 July 2024 | London, United Kingdom



TIME (London) BST/UTC+1	Thu July 11	Fri July 12
09:00 AM	Delegates Check-in	Delegates Arrive
09:30 AM - 11:00 AM	Opening + Keynote Talks  • Giancarlo Guizzardi (University of Twente)  • Chris Mitchell (Royal Holloway, University of London)	<ul> <li>Keynote Talks</li> <li>Liangxiu Han (Manchester Metropolitan University)</li> <li>John Shalf (Lawrence Berkeley National Laboratory)</li> </ul>
11:00 AM - 11:30 AM	Poster Presentations   Networking Break	Networking Break
11:30 AM - 12:30 PM	Paper Presentations   Tutorial	Paper Presentations
12:30 PM - 01:30 PM	Lunch	Lunch
01:30 PM - 03:15 PM	Paper Presentations	Paper Presentations
03:15 PM - 03:30 PM	Networking Break	Networking Break
03:30 PM - 05:00 PM	Paper Presentations	Paper Presentations
05:00 PM Onwards	London Tour (The coaches will depart from the hotel at 5 PM for an enchanting city tour, returning to the hotel by 8 PM)	Conference Closing

## Computing Conference 2024 | Day 1 - July 11, 2024

Session 1: Machine Learning July 11   11:30 AM - 12:30 PM   Chiswick Ballroom Session Chair: Anthony Melaragno	Session 2: Security July 11   11:30 AM - 12:30 PM   Hogarth Suite Session Chair: Ruben Xing	<b>Tutorial</b> July 11   11:30 AM - 12:30 PM Devonshire Suite
18 - Systematic Review of Machine Learning in Recommendation Systems Over the Last Decade (Phoey Teh)  104 - Predicting Suicide Cases Using Deep Neural Network (Shabnam Esfahlani)  184 - Deep Feature Discriminability as a Diagnostic Measure of Overfitting in CNN Models (Sikha OK)  350 - Analysis of the Computational Complexity of Backpropagation and Neuroevolution (Michael C Weeks)  342 - Sentiment Analysis of Post-COVID-19 Work-From-Home Culture: A Literature Review (Joseph Kwame Adjei)	185 - Optimizing Energy States in Mobile Embedded Systems: A SIPN-Based Approach (Daniel Peters) 249 - Feasibility Study with Actual Space Rockets Towards Information Theoretically Secure Radio Communication (Sumio Morioka) 258 - FlexHi: A Flexible Hierarchical Threshold Signature Scheme (Muhammed Ali Bingol) 124 - Security Gaps in the Mobile Money System in Rwanda: Challenges, Risks and Mitigation (Catherine Wambui Nogu) 299 - A Community Security Operations Centre (ComSOC) Model for SMMEs in Developing Countries (Nombeko Ntingi)	Leveraging Technology Tools to Foster Active Learning in Statistics and Mathematics Courses  All STEM faculty teaching online or face-to-face would benefit from the session.  Attendees will also have the opportunity to share their success story from their courses during the session.  (Mario Toussaint, Sher Chhetri)

#### **Session 3: Data Science**

July 11 | 01:30 PM - 03:15 PM | Chiswick Ballroom

Session Chair: Ruben Xing

- 23 Human-Created and AI-Generated Text: What's Left to Uncover? (Phoey Teh)
- 26 AraXLM: New XLM-RoBERTa Based Method for Plagiarism Detection in Arabic Text (Mona Alshehri)
- 39 Strategic Omissions and Theoretical Analysis of Big Data (Ruben Xing)
- 126 The Role of Chatbots in Data Analytics (Sowgol Shooshtarian)
- 130 RBF-SC: A Fast Community Detection Technique Using Radial Basis Functions (Lina Wu, Jia Liu)
- 133 Improving Medication Prescription Strategies for Discordant Chronic Comorbidities Through Medical Data Bench-marking and Recommender Systems (Tom Ongwere)
- 228 Sentiment Analysis for Predicting the Variation Trend of Stocks: A Case Study of Vanke Co., Ltd. (Jin Zheng)
- 96 Investigating Machine Learning Techniques Used for the Detection of Class Noise in Data: A Systematic Literature Review (Cindy Van Den Berg)

#### **Session 4: Computing**

July 11 | 01:30 PM - 03:15 PM | Hogarth Suite

Session Chair: Stephane Chretien

- 349 Optimizing E-Sports Revenue: A Novel Approach to Predicting Merchandise Sales Through Data Analytics and Machine Learning (Md Abu Sufian)
- 85 Analyzing the Influence of Processor Speed and Clock Speed on Remaining Useful Life Estimation of Software Systems (Mohammad Rubyet Islam)
- 44 Computing the Shortest Vector in a Lattice Using the Alternating Direction Method of Multipliers (Stephane Chretien)
- 80 An Algorithm for Detecting Sentence Validity (Ashley Suchy, Charles DeGennaro)
- 374 Faster Lock-Free Atomic Shared Pointers (Jörg Peter Schäfer)
- 393 CICO2e: A Compute Carbon Footprint Estimation Tool Based on Time Series Data (Christian Plewnia)
- 298 Process for the Identification of Vehicle Functions for Cloud Offloading (Martin Sommer)
- 22 Quantum Iterative Algorithm for Linear Systems of Equation (Debasish Roy)

Session 5: Data Science		
July 11   03:30 PM - 05:00 PM   Chiswick Ballroom		
Session Chair: Kohei Arai		

336 - High Dimensional Computing Approach to Detection and Learning Gesture Biometrics (Anthony Melaragno, William Casey)

308 - A Multi-Clustering Unbiased Relative Prediction Recommendation Scheme for Data with Hidden Multiple Overlaps (Michal Chalamish)

369 - An Unsupervised Deep Learning Model for Aspect Retrieving Using Transformer Encoder (Arijit De)

66 - IntentRec: An Advanced Recommender System Leveraging User-Item Intent (Niladri Chatterjee)

154 - Identifying Potential Customer Using Graph Social Media Analytics (Noryanti Muhammad)

27 - Boosting Customer Retention in Pharmaceutical Retail: A Predictive Approach Based on Machine Learning Models (Henry Roa Marin)

#### **Session 6: Computer Vision**

July 11 | 03:30 PM - 05:00 PM | Hogarth Suite Session Chair: Shabnam Sadeghi Esfahlani

200 - Virtual Avatar Movement Veracity and its Effect on Social Interaction in Virtual Reality (Mira Ram)

240 - Wild Animal Recognition Using an Edge Device (Augusto Tortora)

277 - Using BI-RADs Breast Lesion Features-Based Classification for Breast Detection in Ultrasound Images (Haythem El-Messiry)

391 - Infrared Thermography to Assess the Upper Body Temperature of a Person with Poland Syndrome Type II After a Training Plan (Irving A. Cruz-Albarran)

4 - Real Time State Detection of a Foosball Game Using CNN-Based Computer Vision (Ronny Horst, David Hagens)

192 - Automatic Detection of Optic Disc and Fovea From Colour Fundus Images (M. Elena Martinez-Perez)

## Computing Conference 2024 | Day 2 - July 12, 2024

# **Session 7: Machine Learning** July 12 | 11:30 AM - 12:30 PM | Chiswick Ballroom Session Chair: Shabnam Sadeghi Esfahlani 368 - Indoor Obstacle Avoidance System Design and Evaluation Using Deep Learning and SLAM-Based Approaches (Abdelwadoud Benbekhma) 406 - Hybrid CNN Models for Plant Species Recognition and Disease Detection (Sherly K K) 107 - Decoding Philippine Grocery Receipt Item Names Using K-Nearest Neighbor Search and Long Short-Term Memory Network (Reginald Neil C. Recario, King James Zoren C. Tan) 140 Exploring the Concept of Economic Resilience Pre- and Post-2020: A Literature Review Using Text Mining and Sentiment Analysis (Andreea Pernici) 92 - Transforming Medical Waste Management Through IoT and Machine Learning: A Path Towards Sustainability (MD Manirul Islam) 65 - A Numerical Approach for the Fractional Laplacian Via Deep Neural Networks (Nicolas Valenzuela)

# Session 8: Security July 12 | 11:30 AM - 12:30 PM | Hogarth Suite

July 12 | 11:30 AM - 12:30 PM | Hogarth Suite Session Chair: V. Sithira Vadivel

232 - Analyzing the Effect of Cyber Attacks on Zoned-Microgrid's Voltage Stability (Evan Sage)

326- Determining the Segmentation Type Impact on an ID Card Fraud Detection System (Daniel Benalcazar, Andreina Jimenez)

74 - The Impact of Utilising the Amazon AWS Hybrid Deployment Model on Assuring a Secure Migration of a Commercial Web Application into the Cloud (Rafid AlKhannak)

273 - Comparative Analysis of Flow and Cardano Blockchains (Ayda Bransia)

3 - Cybersecurity Governance in the Medical Ecosystem (Sebastiaan von Solms)

359 - Bibliometric and Visualized Analysis of Scientific Publications on Blockchain Technology in Cybersecurity (Gifty Afriyie)

Session 9: Artificial Intelligence	Session 10: Computing
July 12   01:30 PM - 03:15 PM   Chiswick Ballroom	July 12   01:30 PM - 03:15 PM   Hogarth Suite
Session Chair: Tom Ongwere	Session Chair: Sher Chhetri
20 - Al's Influence on Non-Player Character Dialogue and Gameplay Experience (Phoey Teh)	148 - Formal Modeling and Verification of Kafka Producer-Consumer Communication in Mediator (Zhirui Chen)
64 - Trustworthy Al: Deciding What to Decide (Jingjing Xu, Caesar Wu) 261 - Challenges of Deepfakes (Sandra Kopecky)	14 - Improving Employee Well-being of Members of Information Systems Project Team Through Trust (Emmanuel E S Mtsweni)
114 - Head Tail Open: Open Tailed Classification of Imbalanced Document Data (Mark Clement)	86 - Video Conferencing: The Architect's Assistant, a Trailblazing Algorithm for Optimal Technology Choice (Ali Mohd Ali)
332 - A Meta-VAE for Multi-Component Industrial Systems Generation (Fouad	43 - Smart Workplace Past Covid-19 (Rabail Tahir)
Oubari)	321 - Optimised Round Robin with Virtual Runtime for CPU Scheduling (Jagriti
348 - Autoencoder-Based Solution for Intrusion Detection in Industrial Control	Bhatia, Sanskriti Mathuria)
System (Silvio Russo)	311 - The Influence of Social Competencies on the Performance of Software
160 - Towards Automatic Document Classification Using a Fuzzy Logic Approach	Project Team: Political Competency (Ephraim Bogopa)
(Marina Soledad lantorno, Karla Munoz Esquivel)	382 - Application of Cloud Computing in Organizational Structure (Isaac Ampofo)
150 - A New E-Commerce Model Suggestion of Agricultural Products (Gökçe Yakut, Meltem Eryılmaz)	295 - Theory of Programming Adoption (Isaac Ampofo)

July 12   03:30 PM - 05:00 PM   Chiswick Ballroom Session Chair: Sandra Kopecky	July 12   03:30 PM - 05:00 PM   Hogarth Suite Session Chair: Sher Chhetri
267 - Mitigating Cache Pollution Attack Using Deep Learning in Named Data Networking (NDN) (Mohd Maizan Fishol Hamdi) 50 - Identification of A.I. Generated Deep Fake Video by Higher Education Students (Kristiyan Delchev) 276 - Enhancing Pilgrim Safety During Hajj (Nihal Abuzinadah) 36 - An Investigation into Al-Generated Art Through GANs and ML Neural Network (Jean Claude Sacco) 257 - Enhancing Email Urgency Reply Prediction with ATAN-Transformer Fusion (Taiwo Ayodele) 287 - The Advanced Optimal Control Problem and Approach to its Numerical Solving (Askhat Diveev) 234 - A Model of Heterogeneous Display Component for Cyber-Physical Systems	351 - Personalized Student Performance Prediction Modeling for Student Digital Twins (Emmanuel Nsiye) 354 - Immersive Environments at School: "Stop Cyberbullying by Proximity" (Cristina Sánchez Romero, Eva María) 131 - A Comparison of Student Engagement Across Three Teaching Modalities in an Introductory Statistics Course (Mario Toussaint, Sher B. Chhetri) 265 - Impact Factor Game Scoring Model for Positive Emotion Game Design (V. Sithira Vadivel) 188 - Exploring Perceptions of Children's Learning Stress for Stress Management (Pinhao Wang) 266 - Cyber Safety Awareness Through a Massive Open Online Course (MOOC): Community Engagement Knowledge Transfer (Elmarie Kritzinger)
Simulation (Feredj Mohamed)	81 - A Social Profile-Based Recommendation Architecture for E-Learning Systems(Xola Ntlangula)

Session 12: e-Learning

Session 11: Artificial Intelligence