

TABLE OF CONTENTS

CSCI 2025 & LLM 2025 CONFERENCE SCHEDULES

The 2025 International Conference on Computational
Science and Computational Intelligence

<https://www.american-cse.org/csci2025/>

&

The 2025 International Conference on Large Language Models
<https://www.american-cse.org/LLM2025/>

December 03-05, 2025

Luxor (an MGM Resorts International), 3900 Las Vegas Blvd South,
Las Vegas, Nevada 89119, USA

Note that the title of presentations and authors' names that appear in this schedule were extracted from the papers that were submitted to the EVALUATION web site. The official published proceedings/book will have any and all changes/revisions that authors may have done to the title and/or authors lists in the final version of their manuscripts.

ALL TIMES ARE GIVEN IN TERMS OF USA PACIFIC TIME ZONE.

TABLE OF CONTENTS	1
REGISTRATIONS / PACKET PICKUP	4
REFRESHMENTS / BREAKFASTS / RECEPTION	4
OPENING REMARKS, KEYNOTES	5
DECEMBER 03 (WEDNESDAY) - ON-SITE PRESENTATIONS & ACTIVITIES	6
OPENING REMARKS (Ballrooms Galleria D-E)	7
KEYNOTE 1 (Ballrooms Galleria D-E)	7
KEYNOTE 2 (Ballrooms Galleria D-E)	7
SESSION 1A-WED (Ballrooms Galleria D-E)	8
SESSION 2A-WED (Ballrooms Galleria D-E)	9
SESSION 3A-WED (Ballrooms Galleria D-E)	10
POSTER PAPERS (Ballrooms Lotus 2-3)	11
SESSION 4A-WED (Ballrooms Galleria D-E)	12
SESSION 5B-WED (Ballrooms Galleria B-C)	13
SESSION 6B-WED (Ballrooms Galleria B-C)	14
SESSION 7B-WED (Ballrooms Galleria B-C)	15
POSTER PAPERS (Ballrooms Lotus 2-3)	16
SESSION 8B-WED (Ballrooms Galleria B-C)	17

DECEMBER 03 (WEDNESDAY) - ONLINE/ZOOM PRESENTATIONS	18
SESSION 1-ONLINE (ZOOM)	18
ONLINE/ZOOM KEYNOTE/INVITED RALK	20
SESSION 2-ONLINE (ZOOM)	20
SESSION 3-ONLINE (ZOOM)	20
SESSION 4-ONLINE (ZOOM)	21
SESSION 5-ONLINE (ZOOM)	22
 DECEMBER 04 (THURSDAY) - ON-SITE PRESENTATIONS & ACTIVITIES	 23
INVITED PANEL DISCUSSIONS (Ballrooms Galleria D-E)	23
SESSION 9A-THU (Ballrooms Galleria D-E)	24
SESSION 10A-THU (Ballrooms Galleria D-E)	25
SESSION 11A-THU (Ballrooms Galleria D-E)	26
SESSION 12A-THU (Ballrooms Galleria D-E)	27
POSTER PAPERS (Ballrooms Lotus 2-3)	28
SESSION 13A-THU (Ballrooms Galleria D-E)	29
 SESSION 14B-THU (Ballrooms Galleria B-C)	 30
SESSION 15B-THU (Ballrooms Galleria B-C)	31
SESSION 16B-THU (Ballrooms Galleria B-C)	32
SESSION 17B-THU (Ballrooms Galleria B-C)	33
POSTER PAPERS (Ballrooms Lotus 2-3)	34
SESSION 18B-THU (Ballrooms Galleria B-C)	35
 DECEMBER 04 (THURSDAY) - ONLINE/ZOOM PRESENTATIONS	 37
SESSION 6-ONLINE (ZOOM)	37
SESSION 7-ONLINE (ZOOM)	39
SESSION 8-ONLINE (ZOOM)	40
 DECEMBER 05 (Friday) - ON-SITE PRESENTATIONS & ACTIVITIES	 42
SESSION 19A-FRI (Ballrooms Galleria D-E)	43
SESSION 20A-FRI (Ballrooms Galleria D-E)	44
SESSION 21A-FRI (Ballrooms Galleria D-E)	45
SESSION 22A-FRI (Ballrooms Galleria D-E)	46
SESSION 23A-FRI (Ballrooms Galleria D-E)	47
SESSION 24A-FRI (Ballrooms Galleria D-E)	48
CLOSING REMARKS	48
 SESSION 25B-FRI (Ballrooms Galleria B-C)	 49
SESSION 26B-FRI (Ballrooms Galleria B-C)	50
SESSION 27B-FRI (Ballrooms Galleria B-C)	51
SESSION 28B-FRI (Ballrooms Galleria B-C)	52
 CLOSING REMARKS	 52
 DECEMBER 05 (Friday) - ONLINE/ZOOM PRESENTATIONS	 53
SESSION 9-ONLINE (ZOOM)	54
SESSION 10-ONLINE (ZOOM)	55
SESSION 11-ONLINE (ZOOM)	56
SESSION 12-ONLINE (ZOOM)	58
SESSION 13-ONLINE (ZOOM)	59
SESSION 14-ONLINE (ZOOM)	60
 LIST OF PRE-RECODED PRESENTATIONS / POST-CONFERENCE	 61
 CSCI-RTAI: Artificial Intelligence	 62

CSCI-RTBD: Big Data and Data Science	66
CSCI-RTCS: Computational Science	67
CSCI-RTCI: Computational Intelligence	68
CSCI-RTCB: Computational Biology	69
CSCI-RTCW: Cyber Warfare, Cyber Defense, & Cyber Security	70
CSCI-RTPC: Signal & Image Processing, Computer Vision	72
CSCI-RTSC: Smart Cities and Smart Mobility	74
CSCI-RTED: Education	75
CSCI-RTHI: Health Informatics and Medical Systems	77
CSCI-RTMC: Mobile Computing, Wireless Networks, & Security	80
CSCI-RTSE: Software Engineering	81
CSCI-RTOT: Internet of Things & Internet of Everything	82
CSCI-RTNA: Social Network Analysis, Social Media, & Mining	83
CSCI-RTCC: Cloud Computing and Data Centers	84
CSCI-RTPD: Parallel & Distributed Computing	85
International Conference on Large Language Models (LLM'25)	86

REGISTRATIONS / CONFERENCE PACKET PICKUP:

December 02, 2025 (Tuesday): 04:00pm - 06:00pm (Lotus Ballrooms 2 & 3)
December 03, 2025 (Wednesday): 07:00am - 05:00pm (Lotus Ballrooms 2 & 3)
December 04, 2025 (Thursday): 07:00am - 05:00pm (Lotus Ballrooms 2 & 3)
December 05, 2025 (Friday): 07:00am - 03:00pm (Lotus Ballrooms 2 & 3)

REFRESHMENTS/BREAKFASTS/RECEPTION:

December 03, 2025 (Wednesday):

CONTINENTAL BREAKFAST: 07:20am - 08:20am (Lotus Ballrooms 2 & 3)
REFRESHMENT BREAK: 10:40am - 11:00am (Lotus Ballrooms 2 & 3)
REFRESHMENT BREAK + POSTERS: 03:00pm - 03:40pm (Lotus Ballrooms 2 & 3)

December 04, 2025 (Thursday):

CONTINENTAL BREAKFAST: 07:20am - 08:20am (Lotus Ballrooms 2 & 3)
REFRESHMENT BREAK: 10:00am - 10:20am (Lotus Ballrooms 2 & 3)
REFRESHMENT BREAK + POSTERS: 03:00pm - 03:40pm (Lotus Ballrooms 2 & 3)
CONFERENCE RECEPTION DINNER: 07:00pm - 09:00pm (Velvet Room)

December 05, 2025 (Friday):

CONTINENTAL BREAKFAST: 07:20am - 08:20am (Lotus Ballrooms 2 & 3)
REFRESHMENT BREAK: 10:00am - 10:20am (Lotus Ballrooms 2 & 3)
REFRESHMENT BREAK + POSTERS: 03:00pm - 03:20pm (Lotus Ballrooms 2 & 3)

PRESENTATIONS OF GENERAL INTEREST (OPENING REMARKS, KEYNOTES, ...):

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OPENING REMARKS:

CSCI 2025 & LLM 2025 Steering Committee representative,
Professor Emeritus Hamid R. Arabnia
School of Computing, University of Georgia, USA;
Editor-in-Chief, The Journal of Supercomputing (Springer Nature);
Date & Time: December 3, 2025, Wednesday; 08:20 - 08:40am
(LOCATION: Ballrooms Galleria D-E)

KEYNOTE 1:

AI AS A PLATFORM: THE INEVITABLE MARCH FROM LLMs TO TLMs

Massoud Alibakhsh
CEO & Founder, OMADEUS, USA
Date & Time: December 3, 2025, Wednesday; 08:40 - 09:40am
(LOCATION: Ballrooms Galleria D-E)

KEYNOTE 2:

**FROM AI AGENTS TO AGENTIC AI: A PRACTICAL PATH FOR S&OP-CENTRIC SUPPLY
CHAIN OPTIMIZATION**

Beilei Zhu
Intel, Corporation, USA
Date & Time: December 3, 2025, Wednesday; 09:40am - 10:40am
(LOCATION: Ballrooms Galleria D-E)

INVITED PANEL DISCUSSION:

**ARTIFICIAL INTELLIGENCE: AI-2027 OR PEAK AI? (THE GOOD, THE BAD, AND THE UGLY)
AUDIENCE PARTICIPATION IS HIGHLY ENCOURAGED AND GREATLY APPRECIATED.**

PANELISTS:

Mark C. Lewis (+Planetary Science Institute, USA)
Massoud Alibakhsh (CEO & Founder, OMADEUS, USA)

MODERATOR:

Hamid R. Arabnia (Professor Emeritus, University of Georgia, USA)
Date & Time: December 4, 2025, Thursday; 08:20 - 10:00am
(LOCATION: Ballrooms Galleria D-E)

INVITED LECTURE:

**BUILDING AI-POWERED BUSINESS SYSTEMS:
ARCHITECTURE, IMPLEMENTATION, & REAL-WORLD LESSONS**

Karthik Nallani Chakravartula
Farm Credit Bank, Austin, Texas, USA
Date: December 3, 2025, Wednesday
(LOCATION: ONLINE/ZOOM)

December 02

DECEMBER 02, 2025

04:00p - 06:00p: REGISTRATION
(LOCATION: Lotus Ballrooms 2 & 3)

December 03

DECEMBER 3, 2025 (Wednesday)

THERE ARE THREE SETS OF CONCURRENT SESSIONS ON December 3, 2025; TWO are ON-SITE PRESENTATIONS (FACE-TO-FACE) IN BALLROOMS GALLERIA D-E AND BALLROOMS GALLERIA B-C; AND THE THIRD IS ONLINE (THE ZOOM LINKS are ALREADY PROVIDED TO SPEAKERS AND ALL REGISTERED AUTHORS).

7:00am - 5:00pm: REGISTRATION
(LOCATION: Lotus Ballrooms 2-3)

07:20 - 08:20am: CONTINENTAL BREAKFAST
(LOCATION: Lotus Ballrooms 2-3)

December 03

ON-SITE PRESENTATIONS & ACTIVITIES (DECEMBER 3, Wednesday)
LOCATION: Ballrooms Galleria D-E

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- 08:20 - 08:40am: OPENING REMARKS - December 3, 2025, Wednesday;**
CSCI 2025 & LLM 2025 Steering Committee representative,
Professor Emeritus Hamid R. Arabnia
School of Computing, University of Georgia, USA;
Editor-in-Chief, The Journal of Supercomputing (Springer Nature);
Editor, Transactions of Computational Science & Computational
Intelligence (Springer Nature)
(LOCATION: Ballrooms Galleria D-E)
- 08:40 - 09:40am: KEYNOTE 1:**
AI AS A PLATFORM: THE INEVITABLE MARCH FROM LLMs TO TLMs
Massoud Alibakhsh
CEO & Founder, OMADEUS, USA
(LOCATION: Ballrooms Galleria D-E)
- 09:40 - 10:40am: KEYNOTE 2:**
FROM AI AGENTS TO AGENTIC AI: A PRACTICAL PATH FOR
S&OP-CENTRIC SUPPLY CHAIN OPTIMIZATION
Beilei Zhu
Intel, Corporation, USA
(LOCATION: Ballrooms Galleria D-E)
- 10:40 - 11:00am: BREAK (Refreshments)**
(LOCATION: Lotus Ballroom 2-3)

December 03

SESSION 1A-WED: (CONCURRENT SESSION WITH ON-SITE SESSION 5B-WED & ON-LINE SESSIONS)
COMPUTATIONAL SCIENCE AND DATA SCIENCE
<https://www.american-cse.org/csci2025/>
Chairs: Prof. Reza Abdolee
 California State University Channel Islands, California, USA
 December 03, 2025 (Wednesday); 11:00am - 12:20pm
 (LOCATION: Ballrooms Galleria D-E)

- 11:00 - 11:20am: Dynamic Spatio-Temporal Data Summarization using Information Based Fusion
 Humayra Tasnim, Soumya Dutta, Melanie Moses
 Department of Computer Science, University of New Mexico, USA;
 Department of Computer Science and Engineering (CSE),
 Indian Institute of Technology, Kanpur (IITK), Kanpur, India
- 11:20 - 11:40am: Comparing SMILES and SELFIES Embeddings and ECFP4 Fingerprints for Molecular Similarity Search
 Amey Karmarkar, Ramon Lawrence
 University of British Columbia Okanagan, Kelowna,
 British Columbia, Canada
- 11:40 - 12:00pm: GC-MoE: Hierarchical Financial Market Forecasting with Graph-Context Mixture-of-Experts
 Manmeet Rasikbhai Detroja, Dulal Kar
 Department of Computer Science, Texas A&M University-Corpus Christi,
 Corpus Christi, Texas, USA
- 12:00 - 12:20pm: Quantum-PCA for Malware Detection in Supply Chains, Healthcare, and Smart Manufacturing Communications
 Sthefanie J. G. Passo, Vishal H. Kothavade, John J. Prevost
 ECE Department, University of Texas at San Antonio, San Antonio,
 Texas, USA
- 12:20 - 01:00pm: LUNCH (On Your Own)

December 03

SESSION 2A-WED: (CONCURRENT SESSION WITH ON-SITE SESSION 6B-WED & ON-LINE SESSIONS)
LARGE LANGUAGE MODELS - NOVEL APPLICATIONS AND TOOLS - I
<https://www.american-cse.org/LLM2025/>
Chairs: Dr. Raj Singh
Western Governors University, Salt Lake City, Utah, USA
December 03, 2025 (Wednesday); 01:00pm - 02:00pm
(LOCATION: Ballrooms Galleria D-E)

- 01:00 - 01:20pm: Fossilized Memories: Adapting Open LLMs to Oil and Gas Data While Mitigating Catastrophic Forgetting
Sayed A. Raza, Mozoon M. Alwalmany, Ali M. Abusnina, and Khaled A. Alutaibi
Saudi Aramco, Dhahran, Saudi Arabia
- 01:20 - 01:40pm: Comprehending LLM- vs. Human-generated Business Process Models: An Eye-Tracking Study
Maximilian Moller, Luca Franziska Horner, Manfred Reichert
Institute of Databases and Information Systems,
Ulm University, Ulm, Germany
- 01:40 - 02:00pm: LLM-Based Process Modeling: Evaluation of Usability and Semantic Quality
Luca Franziska Horner, Maximilian Moller, Manfred Reichert
Institute of Databases and Information Systems,
Ulm University, Ulm, Germany

December 03

SESSION 3A-WED: (CONCURRENT SESSION WITH ON-SITE SESSION 7B-WED & ON-LINE SESSIONS)
LARGE LANGUAGE MODELS - NOVEL APPLICATIONS AND TOOLS - II +
ARTIFICIAL INTELLIGENCE

<https://www.american-cse.org/LLM2025/>

<https://www.american-cse.org/csci2025/RTAI>

Chairs: Dr. Raj Singh

Western Governors University, Salt Lake City, Utah, USA

December 03, 2025 (Wednesday); 02:00pm - 03:20pm

(LOCATION: Ballrooms Galleria D-E)

02:00 - 02:20pm: Hybrid NLP-LLM Pipelines for Automatic Learning Content Generation

Raj Singh, Julio Cotto

Western Governors University, Salt Lake City, Utah, USA;

Colorado State University, Fort Collins, Colorado, USA

02:20 - 02:40pm: Multi-Stage Retrieval for Operational Technology Cybersecurity

Compliance Using Large Language Models: A Railway Casestudy

Regan Bolton, Mohammadreza Sheikhfathollah, Simon Parkinson,

Dan Basher, Howard Parkinson

Digital Transit Limited, 3M Buckley Innovation Centre,

Huddersfield, UK;

Department of Computer Science, University of Huddersfield,

Huddersfield, UK

02:40 - 03:00pm: QOC DAO - An AI Driven Decentralized Autonomous Organization

Marc Jansen, Christophe Verdot

University of Applied Sciences Ruhr West, Germany;

BlockAI Ltd., Germany

03:00 - 03:20pm: Evolutionary Deep Learning for Channel-selected Glioblastoma Classification in Multimodal Intraoperative Neurophysiological Monitoring

Joseph Davids, Jinpei Han, Noemia Pereira, Gunnar Nelson, Hutan Ashrafian,

Ara Darzi, Uriel Martinez-Hernandez, Leon James, Fady Sedra, Syed Aftab,

Lewis Thorne, Isaac Phang, Andrew Alalade, Adrian Rubio-Solis

Institute of Global Health Innovation, the Hamlyn Centre for

Robotic Surgery, Imperial College, London, London, UK;

Department of Electronic and Electrical Engineering, University of Bath,

Bath, UK; Royal Preston Hospital, Department of Neurosurgery, UK;

Brain & Behaviour Lab, Imperial College London, London, UK;

Department of Neurophysiology, BUPA Cromwell Hospital, UK;

Department of Spinal Surgery, The BUPA Cromwell Hospital and

Royal London Hospital, UK; Nintel Ltd, UK;

Department of Neuro-oncology at the National Hospital for Neurology and

Neurosurgery, London UK

03:20 - 03:40pm: BREAK (Refreshments) & POSTER SESSIONS
(LOCATION: Lotus Ballroom 2-3)

- O. A Proposed Methodology for UAV Battery Analysis Using PyBaMM
 Young-Kwang Hwang, Jong-Seok Lee, Yong-Hwan Lee, and
 Young-Hyung Kim
 Department of Smart Convergence Engineering, Kumoh National
 Institute of Technology, Gumi, South Korea;
 Department of IT Convergence Engineering, Kumoh National
 Institute of Technology, Gumi, South Korea;
 Department of Electronic Engineering, Kumoh National Institute
 of Technology, Gumi, South Korea

- O. A Case Study of Drone-Based Crack Detection and Classification
 on Pavements
 Zefeng Lyu, Andrew Junfang Yu
 Youngstown State University, Ohio, USA;
 University of Tennessee at Knoxville, Tennessee, USA

- O. Development of an Automated Inspection System for Busbar and
 Silicone Pad Alignment in Secondary Batteries
 Yeon-Jeong Ji, Young-Hyung Kim, Jong-seok Lee, Yong-Hwan Lee,
 and Jong-Ik Park
 Department of Electronic Engineering, Kumoh National Institute
 of Technology, Gumi, Korea;
 SEJUNGROBOT, Gumi, Korea

- O. 3D Dynamic Convolution Network for Early Diagnosis of Alzheimer's
 Disease
 Taymaz Akan, Peri Gunes, Sait Alp, Mohammad Alfrad Nobel Bhuiyan
 Department of Medicine, Louisiana State University Health Shreveport,
 Shreveport, Louisiana, USA;
 Department of Software Engineering, Faculty of Engineering,
 Istanbul Topkap. University, Istanbul, Turkey;
 Department of Electrical and Electronics Engineering, Istanbul Gelisim
 University, Istanbul, Turkey;
 Department of Artificial Intelligence Engineering, Trabzon University,
 Trabzon, Turkey

December 03

- SESSION 4A-WED: (CONCURRENT SESSION WITH ON-SITE SESSION 8B-WED & ON-LINE SESSIONS)**
COMPUTATIONAL INTELLIGENCE + ALGORITHMS, TOOLS AND CONCISE REVIEWS +
COMPUTER VISION + SECURITY
<https://www.american-cse.org/csci2025/>
<https://www.american-cse.org/csci2025/RTPC>
<https://www.american-cse.org/csci2025/RTCW>
Chairs: Dr. Vareva E. Harris
University of South Carolina, Columbia, South Carolina, USA
December 03, 2025 (Wednesday); 03:40pm - 05:40pm
(LOCATION: Ballrooms Galleria D-E)
- 03:40 - 04:00pm: Towards Efficient Opportunistic Osteoporosis Screening:
The Role of Feature Selection
Farid Ghareh Mohammadi, Ronnie Sebro
Department of Radiology, MD Anderson Cancer Center, Houston, Texas, USA;
Department of Imaging Physics, MD Anderson Cancer Center,
Houston, Texas, USA;
Department of Epidemiology, MD Anderson Cancer Center, Houston, Texas, USA
- 04:00 - 04:20pm: Detection of Identity Theft in Critical Sectors: A Comprehensive
Literature Review
Shikhar Pandey, Ali Al-Sinayyid, Luice Khamboo, Sameul Adewumi,
Austin Higginbotham, Rohith Reddy Battula
CyberSecurity Innovation Center, West Virginia State University,
Institute, West Virginia, USA;
West Virginia State University, Institute, West Virginia, USA
- 04:20 - 04:40pm: Agile Methodologies in Supply Chain Management: A Systematic
Review of Practices and Enabling Technologies
Zeel Patel, Reece Raymond Tuscano, Soma Datta
University of Houston-Clear Lake, Houston, Texas, USA
- 04:40 - 05:00pm: AI in Healthcare: A Systematic Review of Clinical Applications,
Governance Challenges, and Implementation Priorities
Kenneth Choi, Sj Kim, Yen-Soon Kim
DEX (Digital Experience) Lab, Howard R. Hughes College of
Engineering, University of Nevada, Las Vegas, Nevada, USA;
Harrah College of Hospitality, University of Nevada,
Las Vegas, Nevada, USA
- 05:00 - 05:20pm: MedSR-Vision: Deep Learning Framework for Multi-Domain
Medical Image Super-Resolution
Subhash Gurappa, Trivikram Satharasi, Yashas Hariprasad,
Sundararaj Sitharama Iyengar
Florida International University, Miami, Florida, USA;
University of Florida, Gainesville, Florida, USA;
California State University, East Bay, Hayward, California, USA
- 05:20 - 05:40pm: Investigating the Control Flow Graphs of IoT Binaries for Malware
Detection
Haydar Teymourlouei, Arya Teymourlouei, Vareva E. Harris
Department of Computer Science and Engineering Technology,
University of Maryland, Eastern Shore, Maryland, USA;
Department of Computer Science, University of Maryland,
College Park, Maryland, USA;
Richardson Family SmartState Center for Economic Excellence in
Tourism and Economic Development, College of Hospitality, Retail
and Sport Management, University of South Carolina, Columbia,
South Carolina, USA
- 05:40 - 06:00pm: FREE SLOT

December 03

ON-SITE PRESENTATIONS & ACTIVITIES (DECEMBER 3, Wednesday)
LOCATION: Ballrooms Galleria B-C)
 =====

10:40 - 11:00am: BREAK (Refreshments)
(LOCATION: Lotus Ballroom 2-3)

SESSION 5B-WED: (CONCURRENT SESSION WITH ON-SITE SESSION 1A-WED & ON-LINE SESSIONS)
ARTIFICIAL INTELLIGENCE - LEARNING STRATEGIES AND APPLICATIONS
<https://www.american-cse.org/csci2025/>
<https://www.american-cse.org/csci2025/RTAI>
Chairs: Dr. Vareva E. Harris
 University of South Carolina, Columbia, South Carolina, USA;
 and
 Dr. Raj Singh
 Western Governors University, Salt Lake City, Utah, USA
December 03, 2025 (Wednesday); 11:00am - 12:20pm
(LOCATION: Ballrooms Galleria B-C)

11:00 - 11:20am: A New Design of Mars Orbital Station based on In-Situ Resources
 Utilization and Artificial Intelligence Technology
 Robin Zhang, Patrick Bruskiewich, Kevin Zhang, and
 Chris Cheng Zhang
 St. Patrick Regional Secondary School, Vancouver, Canada;
 Sager Education Inc., Vancouver, Canada;
 Canada Youth Robotics Club, Vancouver, Canada
 University of British Columbia, Vancouver, Canada;

11:20 - 11:40am: Acquisition of Extensive Pareto-Optimal Policies via
 Event-Triggered Reinforcement Learning
 Hayato Chujo, Sachiyo Arai
 Department of Urban Environment Systems, Chiba University,
 Chiba, Japan

11:40 - 12:00pm: Designing Fair and Transparent AI Systems for Automated Debate
 Judging Across Multiple Formats
 Jizhou Tong, Adwaith Kalugotla, Bhuvanesh Bagam, Qing Zhang,
 and Yunkai Liu
 Gannon University, Erie, USA

12:00 - 12:20pm: Learning Dense Rewards from Self-Generated Trajectories for
 Autonomous Driving
 Kota Minoshima, Sachiyo Arai
 Department of Electrical and Electronic Engineering,
 Chiba University, Chiba, Japan

12:20 - 01:00pm: LUNCH (On Your Own)

December 03

- SESSION 6B-WED: (CONCURRENT SESSION WITH ON-SITE SESSION 2A-WED & ON-LINE SESSIONS)**
AI & COMPUTATIONAL INTELLIGENCE
<https://www.american-cse.org/csci2025/RTAI>
<https://www.american-cse.org/csci2025/RTCI>
Chairs: Dr. Vareva E. Harris
University of South Carolina, Columbia, South Carolina, USA;
December 03, 2025 (Wednesday); 01:00 - 02:00pm
(LOCATION: Ballrooms Galleria B-C)
- 01:00 - 01:20pm:** Cognitive Artificial Intelligence in Business Process Management:
An Adaptive and Context-Aware Process Optimization Framework
Bhagyeshkumar Chokhawala, Atif Farid Mohammad
Capitol Technology University, Laurel, Maryland, USA
- 01:20 - 01:40pm:** Optimizing FSO Links Using AI
Maziar Sayeh, Peter Lopresti
Tulsa University, Tulsa, Oklahoma, USA
- 01:40 - 02:00pm:** Solving a highly-constrained bi-objective shift scheduling problem
using a specialized NSGA-II
Bryan Gonzalez-Ramirez, Nicolas Paz-Tralma, Elizabeth Montero
Departamento de Informatica, Universidad Tecnica Federico
Santa Maria, Chile

December 03

- SESSION 7B-WED: (CONCURRENT SESSION WITH ON-SITE SESSION 3A-WED & ON-LINE SESSIONS)**
DATA SCIENCE AND INFORMATION ENGINEERING
<https://www.american-cse.org/csci2025/RTBD>
<https://www.american-cse.org/csci2025/RTCS>
Chairs: Prof. Leonidas Deligiannidis
Wentworth Institute of Technology, Boston, Massachusetts, USA
December 03, 2025 (Wednesday); 02:00 - 03:00pm
(LOCATION: Ballrooms Galleria B-C)
- 02:00 - 02:20pm: Balancing Local and Global Structure Preservation in Dimensionality Reduction
 Corinne Orton, Connor Shrader, Anna Little
 Department of Mathematics, University of Utah,
 Salt Lake City, Utah, USA
- 02:20 - 02:40pm: Using Embeddings to Train and Build Privacy-Preserving Machine Learning Models and Applications
 Pierce Buckner-Wolfson, Dalmo Cirne
 Wesleyan University, Middletown, Connecticut, USA;
 Workday, Inc., Boulder, Colorado, USA
- 02:40 - 03:00pm: Improved CG-Algorithm for Solving the Graph Balancing Problem with Job Precedence
 Yu-Han Chen, Guan-Shieng Huang, Bo-Ai Chang, Sun-Yuan Hsieh
 Department of Computer Science and Information Engineering,
 National Cheng Kung University, Tainan City, Taiwan (R.O.C);
 Department of Computer Science and Information Engineering,
 National Chi Nan University, Nantou City, Taiwan (R.O.C);
 Institute of Medical Informatics, National Cheng Kung University,
 Tainan City, Taiwan (R.O.C);
 Institute of Manufacturing Information and Systems, National Cheng Kung University, Tainan City, Taiwan (R.O.C);
 Institute of Information Science, Academia Sinica, Nankang,
 Taipei City, Taiwan (R.O.C);
 Research Center for Information Technology Innovation,
 Academia Sinica, Taipei City, Taiwan (R.O.C)

**03:00 - 03:40pm: BREAK (Refreshments) & POSTER SESSIONS
(LOCATION: Lotus Ballroom 2-3)**

- 0. A Proposed Methodology for UAV Battery Analysis Using PyBaMM
Young-Kwang Hwang, Jong-Seok Lee, Yong-Hwan Lee, and Young-Hyung Kim
Department of Smart Convergence Engineering, Kumoh National Institute of Technology, Gumi, South Korea;
Department of IT Convergence Engineering, Kumoh National Institute of Technology, Gumi, South Korea;
Department of Electronic Engineering, Kumoh National Institute of Technology, Gumi, South Korea
- 0. A Case Study of Drone-Based Crack Detection and Classification on Pavements
Zefeng Lyu, Andrew Junfang Yu
Youngstown State University, Ohio, USA;
University of Tennessee at Knoxville, Tennessee, USA
- 0. Development of an Automated Inspection System for Busbar and Silicone Pad Alignment in Secondary Batteries
Yeon-Jeong Ji, Young-Hyung Kim, Jong-seok Lee, Yong-Hwan Lee, and Jong-Ik Park
Department of Electronic Engineering, Kumoh National Institute of Technology, Gumi, Korea;
SEJUNGROBOT, Gumi, Korea
- 0. 3D Dynamic Convolution Network for Early Diagnosis of Alzheimer's Disease
Taymaz Akan, Peri Gunes, Sait Alp, Mohammad Alfrad Nobel Bhuiyan
Department of Medicine, Louisiana State University Health Shreveport, Shreveport, Louisiana, USA;
Department of Software Engineering, Faculty of Engineering, Istanbul Topkap. University, Istanbul, Turkey;
Department of Electerical and Electronics Engineering, Istanbul Gelisim University, Istanbul, Turkey;
Department of Artificial Intelligence Engineering, Trabzon University, Trabzon, Turkey

December 03

SESSION 8B-WED: (CONCURRENT SESSION WITH ON-SITE SESSION 4A-WED & ON-LINE SESSIONS)
COMPUTATIONAL SCIENCE, IMAGING SCIENCE, AND EDUCATION
<https://www.american-cse.org/csci2025/RTCS>
<https://www.american-cse.org/csci2025/RTPC>
<https://www.american-cse.org/csci2025/RTED>
Chairs: Prof. Leonidas Deligiannidis
Wentworth Institute of Technology, Boston, Massachusetts, USA
December 03, 2025 (Wednesday); 03:40pm - 06:00pm
(LOCATION: Ballrooms Galleria B-C)

- 03:40 - 04:00pm: A Computational Model for Quark Confinement and Thermodynamics in a Casimir-Like Trap
 Boya Hou, Patrick Bruskiewich, Amirreza Sedaghat, and Chris Cheng Zhang
 Burnaby North Secondary School, Canada;
 Sager Education Inc., Vancouver, Canada;
 Cansight Technology Corporation, Canada
- 04:00 - 04:20pm: Integer Wavelet Transformation Enhanced Multi-level Clustering Lossless Compression Algorithm for Remotely Sensed Images
 Zhaohui Wang
 Department of Computer Systems Technology, North Carolina A&T State University, Greensboro, North Carolina, USA
- 04:20 - 04:40pm: Leveraging AI-Generated Podcasts to Enhance Higher Education
 Yunkai Liu, Mei-Huei Tang
 Gannon University, Erie, PA, USA
- 04:40 - 05:00pm: An Online PDF-Quiz Converter
 Alen Curovic, Zizhong John Wang
 Department of Computer Science, Virginia Wesleyan University, Virginia Beach, USA
- 05:00 - 05:20pm: Fusing an Infrared Spectroscopy Sensor and Camera to Improve Microplastics Detection
 Kevin Zhang, Robin Zhang, Amirreza Sedaghat, Chris Cheng Zhang
 St. Patrick Regional Secondary School, Vancouver, Canada;
 Cansight Technology Corporation, Toronto, Canada;
 Canada Youth Robotics Club, Vancouver, Canada;
 University of British Columbia, Vancouver, Canada;
- 05:20 - 05:40pm: Cognitive Perceptions of Students' Use of AI Bots
 Scott C. Spangler*, Shannon W. Beasley
 Middle Georgia State University, Macon, Georgia, USA
- 05:40 - 06:00pm: A Novel Platform Model for IoT Devices M2M Communication in 6G Network
 Tariq Daradkeh*, Salah Harb, Yanal Alahmad
 Department of Computer Science, Yarmouk University, Jordan;
 Lawrence Berkeley National Laboratory, California, USA;
 Department of Computer Information System, Yarmouk University, Jordan

ON-LINE PRESENTATIONS (DECEMBER 03 - Wednesday)

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PLEASE NOTE THAT ALL DATES AND TIMES MENTIONED IN THIS DOCUMENT ARE IN TERMS OF LAS VEGAS TIME-ZONE (USA Pacific Time-zone).

The conference has granted the request from the administrations of 9 institutions to live stream the online sessions for their classrooms (one connection per classroom / institution).

IMPORTANT: If possible, speakers are expected to connect at the beginning of the session in which their papers are scheduled for presentation. This will help the admin of the session to manage the logistical process. In case of questions about the online/ZOOM presentations during the conference days (Dec. 03-05, 2025), please contact csci.zoom@gmail.com

SESSION 1-ONLINE: ARTIFICIAL INTELLIGENCE + EDUCATION + DATA SCIENCE + APPLICATIONS

<https://www.american-cse.org/csci2025/RTAI>

<https://www.american-cse.org/csci2025/RTMC>

<https://www.american-cse.org/csci2025/RTED>

<https://www.american-cse.org/csci2025/RTBD>

CHAIR: Dr. Farid Gharehmohammadi

Co-Founder and CEO, Verify Radiology Images Consultants, LLC. Texas, USA
December 03, 2025 (Wednesday); 06:00am - 08:00am
(ONLINE - ZOOM)

- 06:00 - 06:20am: Technical Review of the Challenges and Advances of Privacy-Preserving Deep Learning Techniques for Audio Data
Rotimi-Williams Bello, Roseline Oluwaseun Ogundokun,
Pius A. Owolawi, Etienne A. van Wyk, Chunling Tu
Department of Computer Systems Engineering, Faculty of
Information and Communication Technology,
Tshwane University of Technology, South Africa
- 06:20 - 06:40am: A Comprehensive Review of Machine Learning-Based Network Traffic Prediction Methods
Themba Nkosi, Topside Mathonsi
Tshwane University of Technology, Pretoria, South Africa
- 06:40 - 07:00am: Blockchain-Based Framework for Effective Proctoring System in Open Distance Electronic Learning (ODEL) Online Examinations: Hardware and Software Control Perspective
Prince Yaw Owusu Amoako, Ernest Mnkandla, Emmanuel Freeman
Centre for Augmented Intelligence and Data Science (CAIDS),
School of Computing, College of Science, Engineering and
Technology, University of South Africa, South Africa
- 07:00 - 07:20am: PISTIS-DM: A Semantically Enriched Data Model for Federated and Trusted Data Sharing, Discovery and Utilization of Proprietary Data Assets
Muhammad Ahtisham Aslam, Yury Glikman, Sangeetha Reji,
Rosanny Sihombing, Ahmad Al Asadi
Fraunhofer Institute for Open Communication Systems (FOKUS),
Berlin, Germany

December 03

- 07:20 - 07:40am: Detecting Structural Breaks in Latent Feeling and Uncertainty of Expectations and Judgments of Price Levels Over Time
Carmela Cappelli, Rosaria Simone, Francesca Di Iorio
Department of Humanities, University of Naples Federico II, Italy;
Department of Political Sciences, University of Naples Federico II, Italy
- 07:40 - 08:00am: Advancements in Deep Learning for Detection and Management of Banana Fusarium Wilt Disease: A Systematic Analysis
Ramalingam Dharmalingam, Jacintha Menezes, Ali Al Adawi, Saif Al Kaabi, D. Vaishnavi
Faculty of Information Technology, Majan University College, Muscat, Oman;
Ghadafan Agriculture Research Station, Ministry of Agriculture, Fisheries Wealth and Water Resources, Suhar, Oman;
Department of CSE, SRC, SASTRA Deemed to be University, Tamil Nadu, India

December 03

08:00 - 08:40am:

SESSION 2-ONLINE: INVITED KEYNOTE/LECTURE**MODERATOR: Dr. Farid Gharehmohammadi****Co-Founder and CEO, Verify Radiology Images Consultants, LLC. Texas, USA****December 03, 2025 (Wednesday); 08:00am - 08:40am****(ONLINE - ZOOM)****KEYNOTE TITLE:****Building AI-Powered Business Systems: Architecture, Implementation, and Real-World Lessons****Karthik Nallani Chakravartula****Farm Credit Bank, Austin, Texas, USA****(ONLINE - ZOOM)****SESSION 3-ONLINE: ARTIFICIAL INTELLIGENCE + LARGE LANGUAGE MODELS + SECURITY**<https://www.american-cse.org/csci2025/RTAI><https://www.american-cse.org/csci2025/RTCW><https://www.american-cse.org/LLM2025/>**CHAIR: Dr. Farid Gharehmohammadi****Co-Founder and CEO, Verify Radiology Images Consultants, LLC. Texas, USA****December 03, 2025 (Wednesday); 08:40am - 10:40am****(ONLINE - ZOOM)**

08:40 - 09:00am: Real-Time Credit Risk Assessment in Agri-Finance:

A Dynamics 365-Based AI Framework

Karthik Nallani Chakravartula

Farm Credit Bank, Austin, Texas, USA

09:00 - 09:20am: GRAFT: Graph-of-Thoughts-Based Reasoning and Augmentation for Fine-Tuning Text-to-SQL

Raghu Katikeri, Gaurav Mamgain, Himanshu Nakrani, Rajvi Desai,

Tarun Kasula, Amit Vaid

Artificial Intelligence, Emerging Tech CoE, State Street

Corporation, Hyderabad, India;

Artificial Intelligence, Emerging Tech CoE, State Street

Corporation, Bengaluru, India

09:20 - 09:40am: STL-QCRYPTO: Strategic Industrial Framework for Quantum-Resistant Cyber Defense

Arit Kumar Bishwas, Mousumi Sen

PWC USA, San Francisco, California, USA;

SETI Institute, Mountain View, California, USA

09:40 - 10:00am: A Multi-Agent Self-Optimizing Framework for Real-Time LLM Model Selection and Routing

Raghu Chandra Katikeri, Chiranjeevi Bhagavan, R Anush Jain,

Priya Sinha, Peruri Giri Sainath, Khushi Lamichaney, Amit Vaid

State Street Corporation, India

10:00 - 10:20am: Auditable Feedback Filtering for Autonomous Agents: A Privacy-Preserving Defense Against Feedback Poisoning Using zk-Proofs, OPA, and Post-Quantum Cryptography

Raghu Chandra Katikeri, Rachita Barla, Amit Vaid

Artificial Intelligence, Emerging Tech CoE, State Street Corporation, India

10:20 - 10:40am: CURATE-FT: A Modular Framework for High-Fidelity Data Curation for Fine-Tuning

Mishra Sushanta Kumar, Aum Khant, Vivek Dedani, Sangeeth Keeriyadath, Vijay Karthik

State Street Corporation, India

December 03

SESSION 4-ONLINE: COMPUTATIONAL SCIENCE + EDUCATION + COMPUTATIONAL BIOLOGY + SECURITY APPLICATIONS

<https://www.american-cse.org/csci2025/RTCS>

<https://www.american-cse.org/csci2025/RTED>

<https://www.american-cse.org/csci2025/RTHI>

<https://www.american-cse.org/csci2025/RTCW>

<https://www.american-cse.org/csci2025/RTCB>

CHAIR: Dr. Farid Gharehmohammadi

Co-Founder and CEO, Verify Radiology Images Consultants, LLC. Texas, USA

December 03, 2025 (Wednesday); 10:40am - 12:40pm

(ONLINE - ZOOM)

- 10:40 - 11:00am: "Rules of the Road" Navigation with Logic, Theorem Proving and a Large Ontology
James Timberlake, Adam Pease
Naval Postgraduate School, Monterey, California, USA
- 11:00 - 11:20am: Designing an Integrated Undergraduate Course on Machine Learning and Parallel Computing
Xuguang Chen
Department of Computer Science, Saint Martin's University, Lacey, Washington, USA
- 11:20 - 11:40am: Feasibility of Physical Telerehabilitation in Dysautonomia Patients with Postural Orthostatic Tachycardia Syndrome
Aileen S. Gabriel, Aref Smiley, Patricia Goncalves Leite Rocco, Katie Johnson, Melissa M. Cortez, Joseph Finkelstein
University of Arizona College of Medicine, Tucson, Arizona, USA;
Department of Neurology, University of Utah, Salt Lake City, Utah, USA
- 11:40 - 12:00pm: A New Cryptographic Hash Function
Monica Ingham, Shengli Yuan
University of Houston-Downtown, Houston, Texas, USA
- 12:00 - 12:20pm: User-Guided Transfer Learning for Optimized Non-Intrusive Load Monitoring
Papa Pene, Weixian Liao, Wei Yu, David Griffith, Nada Golmie
Towson University, Towson, Maryland, USA;
National Institute of Standards and Technology (NIST), Gaithersburg, Maryland, USA
- 12:20 - 12:40pm: Application of Artificial Intelligence (AI) to Predict Genetic Biomarkers of Brain Tumors from Transcriptomic Datasets
Adewale Adeniyi, Arpana Basnet, Ato Bhatta, Skylar Sawyer, Richard Williams, Tijesumini Adeyemi, Roshan Paudel
Morgan State University, Baltimore, Maryland, USA

December 03

SESSION 5-ONLINE: COMPUTATIONAL SCIENCE + SIGNAL & IMAGE PROCESSING, COMPUTER VISION & PATTERN RECOGNITION

<https://www.american-cse.org/csci2025/RTCS>

<https://www.american-cse.org/csci2025/RTPC>

CHAIR: Dr. Farid Gharehmohammadi

Co-Founder and CEO, Verify Radiology Images Consultants, LLC. Texas, USA

December 03, 2025 (Wednesday); 12:40pm - 02:00pm

(ONLINE - ZOOM)

- 12:40 - 01:00pm:** Optimizing Microservices Architecture for High-Speed Financial Data Processing: A Spring Boot-Based Approach
Aravind Raghu
HYR Global Source, Justin, Texas, USA
- 01:00 - 01:20pm:** UAV Image-Guided Adaptive Inspection for Efficient Roof Anomaly Detection
Miao Tan, Haitao Liao, Fan Bu
Industrial Engineering, University of Arkansas, Fayetteville, Arkansas, USA;
Department of Industrial, Manufacturing, and Systems Engineering, Texas Tech University, Lubbock, Texas, USA
- 01:20 - 01:40pm:** Applicability of Amyloid Intensity Histograms and Amyloid Beta Status Correlations on Segmented Positron Emission Tomography Scans for Alzheimer's Diagnosis
Micheal Adeyosoye, Thony Yan Ling, Xueting Cui, Bipul Simkhada, Luana O. Sawada, Mina Ezzati, Mercedes Cabrerizo, Armando Barreto, Naphtali Rishe, Malek Adjouadi
Florida International University, Miami, Florida, USA
- 01:40 - 02:00pm:** Object Detection with Electromagnetic Reflection Model and Nested Sampling
Jundong Chen, Louis Roemer
Department of Computer Science, University of Wisconsin-Parkside, Kenosha, Wisconsin, USA;
University of Akron, Talent, Oregon, USA

December 04

DECEMBER 04, 2025 (Thursday)

THERE ARE THREE SETS OF CONCURRENT SESSIONS ON December 4, 2025; TWO are ON-SITE PRESENTATIONS (FACE-TO-FACE) IN BALLROOMS GALLERIA D-E AND BALLROOMS GALLERIA B-C; AND THE THIRD IS ONLINE (THE ZOOM LINKS are ALREADY PROVIDED TO SPEAKERS AND ALL REGISTERED AUTHORS).

7:00am - 5:00pm: REGISTRATION
(LOCATION: Lotus Ballrooms 2-3)

07:20 - 08-20am: CONTINENTAL BREAKFAST
(LOCATION: Lotus Ballrooms 2-3)

ON-SITE PRESENTATIONS & ACTIVITIES (DECEMBER 04, Thursday)
LOCATION: Ballrooms Galleria D-E

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08:20 - 10:00am: INVITED PANEL DISCUSSION
AUDIENCE PARTICIPATION IS HIGHLY ENCOURAGED AND GREATLY APPRECIATED.

PANEL TOPIC: ARTIFICIAL INTELLIGENCE: AI-2027 OR PEAK AI?
(THE GOOD, THE BAD, AND THE UGLY)

PANELISTS: Mark C. Lewis (Planetary Science Institute, USA)
Massoud Alibakhsh (CEO & Founder, OMADEUS, USA)

MODERATOR: Hamid R. Arabnia (Professor Emeritus)
University of Georgia, USA

10:00 - 10:20am: BREAK (Refreshments)
(LOCATION: Lotus Ballrooms 2-3)

December 04

SESSION 9A-THU: (CONCURRENT SESSION WITH ON-SITE SESSION 14B-THU & ON-LINE SESSIONS)
LARGE LANGUAGE MODELS, APPLICATIONS, AND CASE STUDIES
<https://www.american-cse.org/LLM2025/>

Chairs: Dr. Mehdi Ghayoumi, Ph.D.

Assistant Professor of Cybersecurity,

Lab Director, Data Science Innovations Lab (DSIL)

State University of New York, Canton, New York, USA

December 04, 2025 (Thursday); 10:20am - 11:20am

(LOCATION: Ballrooms Galleria D-E)

10:20 - 10:40am: Enhancing Large Language Model Accuracy with Retrieval-Augmented Generation: A Comparative Study

Tathagata Bhattacharya, Irshad Ali Mohammad, Amit Das,

Jahnvi Sunki Reddy, and Harshavardhan Meka

Department of CSIS, Auburn University at Montgomery,

Montgomery, Alabama, USA

10:40 - 11:00am: Vibe Coding: A Case Study of College Freshmen Developing a Full-Fledged Game in Ten Weeks

Brycen Kirchharr, Tristan Whitson, Jeremy Straub

Department of Cybersecurity, University of West Florida,

Florida, USA;

Center for Cybersecurity, University of West Florida, Florida, USA

11:00 - 11:20am: LLM Driven Processes to Foster Explainable AI

Marcel Pehlke, Marc Jansen

University of Applied Sciences Ruhr West, Bottrop, Germany

December 04

- SESSION 10A-THU: (CONCURRENT SESSION WITH ON-SITE SESSION 15B-THU & ON-LINE SESSIONS)**
COMPUTATIONAL INTELLIGENCE + ARTIFICIAL INTELLIGENCE + SECURITY STRATEGIES
<https://www.american-cse.org/csci2025/RTCI>
<https://www.american-cse.org/csci2025/RTCW>
<https://www.american-cse.org/csci2025/RTAI>
Chairs: Dr. Mehdi Ghayoumi, Ph.D.
 Assistant Professor of Cybersecurity,
 Lab Director, Data Science Innovations Lab (DSIL)
 State University of New York, Canton, New York, USA
December 04, 2025 (Thursday); 11:20am - 12:20pm
(LOCATION: Ballrooms Galleria D-E)
- 11:20 - 11:40am:** Towards Secure and Highly Functional Vibe Coding
 Jeremy Straub
 University of West Florida, Florida, USA
- 11:40 - 12:00pm:** Anxiety Detection in a Low-Resource Setting: When Does Feature Engineering Outperform Deep Learning?
 Caesar Itzhak Keisar, Yaakov HaCohen-Kerner
 Department of Computer Science, Jerusalem College of Technology
 (Lev Academic Center), Jerusalem, Israel
- 12:00 - 12:20pm:** Analysis of Frequency-Domain Signal Representations on the Performance of Deep Learning Models for Financial Trend Classification
 Seyed Mojtaba Naghibzadeh, Mohammad Hassanzadeh, Majid Ahmadi,
 George P. Pappas, Nabih Jaber
 Department of Electrical and Computer Engineering,
 University of Windsor, Windsor, Canada;
 Department of Electrical and Computer Engineering,
 Lawrence Technological University, Southfield, Michigan, USA
- 12:20 - 01:00pm:** LUNCH (On Your Own)

December 04

SESSION 11A-THU: (CONCURRENT SESSION WITH ON-SITE SESSION 16B-THU & ON-LINE SESSIONS)

LARGE LANGUAGE MODELS AND COMPUTATIONAL SCIENCE

<https://www.american-cse.org/csci2025/RTAI>

<https://www.american-cse.org/LLM2025/>

Chairs: Prof. Yaakov HaCohen-Kerner

Department of Computer Science, Jerusalem College of

Technology (Lev Academic Center), Jerusalem, Israel

December 04, 2025 (Thursday); 01:00pm - 02:00pm

(LOCATION: Ballrooms Galleria D-E)

- 01:00 - 01:20pm: LLM Conversion of Python for Scientific Computing
Lisa L. Lacher, Mark C. Lewis, Amanda A. Sickafoose, and
Elliot F. Young
University of Houston Clear Lake, Texas, USA;
Planetary Science Institute, Tucson, Arizona, USA;
Southwest Research Institute, Boulder, Colorado, USA
- 01:20 - 01:40pm: Increasing AI Explainability by LLM Driven Standard Processes
Marc Jansen, Marcel Pehlke
University of Applied Sciences Ruhr West, Germany
- 01:40 - 02:00pm: Monosemantic Feature Neurons: A Sparse Autoencoding Layer for
Interpretable, Steerable Transformer Features
Roger Dev
Bellvue, Colorado, USA

December 04

SESSION 12A-THU: (CONCURRENT SESSION WITH ON-SITE SESSION 17B-THU & ON-LINE SESSIONS)

HEALTH INFORMATICS AND MEDICAL SYSTEMS + SECURITY

<https://www.american-cse.org/csci2025/RTHI>

<https://www.american-cse.org/csci2025/RTCW>

Chairs: Dr. Mehdi Ghayoumi, Ph.D.

Assistant Professor of Cybersecurity,

Lab Director, Data Science Innovations Lab (DSIL)

State University of New York, Canton, New York, USA

December 04, 2025 (Thursday); 02:00pm - 03:00pm

(LOCATION: Ballrooms Galleria D-E)

02:00 - 02:20pm: Synthetic Medical Image Generation with Conditional Generative Adversarial Networks for Enhanced Diagnostic Performance
Sayli Aphale, Aditya Kalapala, Ernest Tolliver, Eugene John
Department of Electrical and Computer Engineering,
The University of Texas at San Antonio, San Antonio, Texas, USA

02:20 - 02:40pm: A Neuromusculoskeletal Simulation Framework for Generating Realistic, Multi-Modal Synthetic Fall Data
Olivia Lu Feng, Sandy Shengyi Zhao, Yan Lin, Ocean Yangzijian Han, Wilson Qiwei Sun, Runjie Fan, Amirreza Sedaghat, Chris Cheng Zhang
Kent School, USA; St. John Paul II Catholic Secondary School, Canada; Sir Winston Churchill Secondary School, Canada; A.R. MacNeill Secondary School, Canada; McMaster University, Canada; Cansight Technology Corporation, Canada; DeGroot School of Business, McMaster University, Hamilton, Canada

02:40 - 03:00pm: Central Cybersecurity Command Center: The Core of Security for Cloud and Cyber Warfare
Gavan Leins
Southern Utah University, Cedar City, Utah, USA

03:00 - 03:40pm: BREAK (Refreshments) & POSTER SESSIONS
(LOCATION: Lotus Ballroom 2-3)

- 0. Silent Sensors: Exploring Cemeteries as IoT Nodes in Smart Urban Networks
 Alexis Brown, James Braman
 Community College of Baltimore County, Baltimore, Maryland, USA
- 0. Development of an LLM-Assisted Programming Learning Support System Based on Stepwise Refinement Process
 Yuta Harada, Atsuo Hazeyama, Shoichi Nakamura, and Youzou Miyadera
 Tokyo Gakugei University, Koganei, Tokyo, Japan;
 Fukushima University, Fukushima, Japan
- 0. Development of a Reflection Map Creation Support System Using LLMs to Foster Self-Directed and Autonomous Learning
 Shoichi Furukawa, Atsuo Hazeyama, Shoichi Nakamura, and Youzou Miyadera
 Tokyo Gakugei University, Koganei, Tokyo, Japan;
 Fukushima University, Fukushima, Japan
- 0. LLM-Based Support System for Research Topic Decision via Research Information and Notes Organization
 Shuichiro Shindo, Shoichi Nakamura, Youzou Miyadera
 Tokyo Gakugei University, Koganei, Tokyo, Japan;
 Fukushima University, Fukushima, Japan
- 0. Classical Machine Learning vs. Large Language Models for Prostate Cancer Detection
 Islam Omar, Mona Y. Elshinawy, Mostafa A. Arafa, Danny M. Rabah, Abdel-Hameed A. Badawy
 Klipsch School of ECE, New Mexico State University, Las Cruces, New Mexico, USA;
 Engineering Technology and Surveying Engineering Department, New Mexico State University, Las Cruces, New Mexico, USA;
 The Cancer Research Chair, Surgery Department, College of Medicine, King Saud University, Riyadh, Saudi Arabia;
 Surgery Department, College of Medicine, King Saud University, Riyadh, Saudi Arabia;
 Department of Urology, King Faisal Specialist Hospital and Research Center, Riyadh, Saudi Arabia;
 Department of Epidemiology, High Institute of Public Health, Alexandria University, Alexandria, Egypt

**SESSION 13A-THU: (CONCURRENT SESSION WITH ON-SITE SESSION 18B-THU & ON-LINE SESSIONS)
COMPUTATIONAL SCIENCE + ARTIFICIAL INTELLIGENCE +
IMAGING SCIENCE**

<https://www.american-cse.org/csci2025/RTCS>

<https://www.american-cse.org/csci2025/RTAI>

<https://www.american-cse.org/csci2025/RTHI>

<https://www.american-cse.org/csci2025/RTPC>

Chairs: Prof. Leonidas Deligiannidis

Wentworth Institute of Technology, Boston, Massachusetts, USA

December 04, 2025 (Thursday); 03:40pm - 05:40pm

(LOCATION: Ballrooms Galleria D-E)

03:40 - 04:00pm: Lightweight Deep Learning Model for Electrooculography-Based User Authentication

Qingqing Li, John Cook, Ata Tangban, Weixiao Liao, Wei Yu
Department of Computer and Information Sciences,
Towson University, Maryland, USA

04:00 - 04:20pm: Graph-Augmented Machine Learning for Socioeconomic Prediction Using Census Data

Farahnaz Hosseini, Ting Xiao
Department of Computer Science and Engineering, University of North Texas, Denton, Texas, USA;
Department of Data Science, University of North Texas, Denton, Texas, USA

04:20 - 04:40pm: Quantifying the Difference Between Natural and Simulated Quantum Processors

Garrett Short, Bryson R. Payne, Murthy Rallapalli
University of North Georgia, Dahlonega, Georgia, USA

04:40 - 05:00pm: An Explainable Hybrid AI Framework for Enhanced Tuberculosis and Symptom Detection

Neel Patel, Alexander Wong, Ashkan Ebadi
Mechanical and Mechatronics Engineering, University of Waterloo, Waterloo, ON, Canada;
Systems Design Engineering, University of Waterloo, Waterloo, ON, Canada;
Digital Technologies, National Research Council Canada, Toronto, ON, Canada

05:00 - 05:20pm: Discovering Socioeconomic Structure with Unsupervised Graph Neural Embeddings on Census Data

Farahnaz Hosseini, Ting Xiao
Department of Computer Science and Engineering, University of North Texas, Denton, Texas, USA;
Department of Data Science, University of North Texas, Denton, Texas, USA

05:20 - 05:40pm: FREE SLOT

05:40 - 06:00pm: FREE SLOT

07:00 - 09:00pm: CONFERENCE RECEPTION DINNER

December 4, 2025 (Thursday); 07:00pm - 09:00pm

(LOCATION: Velvet Room)

ON-SITE PRESENTATIONS & ACTIVITIES (DECEMBER 04, Thursday)**LOCATION: Ballrooms Galleria B-C**

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10:00 - 10:20am: BREAK (Refreshments)
(LOCATION: Lotus Ballrooms 2-3)

SESSION 14B-THU: (CONCURRENT SESSION WITH ON-SITE SESSION 9A-THU & ON-LINE SESSIONS)**ARTIFICIAL INTELLIGENCE + APPLICATIONS + GRAPHS AND NETWORKS**<https://www.american-cse.org/csci2025/RTAI><https://www.american-cse.org/csci2025/RTOT>**Chairs: Prof. George Dimitoglou****Hood College, Frederick, Maryland, USA****December 04, 2025 (Thursday); 10:20am - 11:20am****(LOCATION: Ballrooms Galleria B-C)**

10:20 - 10:40am: ELROND: A Resistance Distance Based Approach to Ranking Results
from Knowledge Graph Queries

Abrar Mesbah, Chris Bizon, Alexander Tropsha, Rayn Sakaguchi,

Maxwell Wang, Patrick Wang, Kenneth Morton

CoVar, Durham, North Carolina, USA;

Renaissance Computing Institute, University of North Carolina

at Chapel Hill, North Carolina, USA;

Duke University, Durham, North Carolina, USA

10:40 - 11:00am: An Efficient Feature Selection Framework Using Genetic Algorithms
for AI-Driven IDS in IoT Environments

Jose Carlos Garcia-Merino, Llanos Tobarra, Antonio Robles-Gomez,

Rafael Pastor-Vargas, Pedro Vidal-Balboa

Programa de Doctorado en Sistemas Inteligentes Escuela

Internacional de Doctorado UNED (EIDUNED), Madrid, Spain;

Departamento de Sistemas de Comunicacion y Control, ETSI

Informatica, Universidad Nacional de Educacion a Distancia (UNED),

Madrid, Spain;

Consorcio CA UNED en Ponferrada / INTECCA, Ponferrada, Spain

11:00 - 11:20am: Improved Completion of DrugMatrix with Integration of BioSpyder
Whole Transcriptome Using Side Information and Attention

Guojing Cong, Robert Patton, Parker Combs, Jeremy Erickson,

Michele R. Balik-Meisner, Deepak Mav, Dhiral P. Phadke,

Elizabeth H. Scholl, Ruchir R. Shah, Andrew A. Rooney, and

Scott S. Auerbach

Data and AI Section, Oak Ridge National Laboratory, Oak Ridge,

Tennessee, USA;

Division of Translational Toxicology, National Institute of

Environmental Health Sciences, RTP, North Carolina, USA;

Sciome LLC, RTP, North Carolina, USA

December 04

SESSION 15B-THU: (CONCURRENT SESSION WITH ON-SITE SESSION 10A-THU & ON-LINE SESSIONS)
ARTIFICIAL INTELLIGENCE AND COGNITIVE COMPUTING
<https://www.american-cse.org/csci2025/RTAI>
Chairs: Prof. George Dimitoglou
Hood College, Frederick, Maryland, USA
December 04, 2025 (Thursday); 11:20am - 12:20pm
(LOCATION: Ballrooms Galleria B-C)

11:20 - 11:40am: Machine Learning Insights on SME Resilience: Evidence from Ibero-America and Ecuador
 Carmen Parreno-Collaguazo, Edison Loza-Aguirre,
 Maria Isabel Sanchez-Pazmino, Henry N. Roa
 Escuela Politecnica Nacional, Facultad de Ingenieria en
 Sistemas, Quito, Ecuador;
 Universidad San Francisco de Quito, Colegio de Administracion
 de Empresas, Quito, Ecuador;
 Escuela Politecnica Nacional, Facultad de Ciencias
 Administrativas, Quito, Ecuador;
 Pontificia Universidad Catolica del Ecuador, Facultad de
 Habitat, Infraestructura y Creatividad, Quito, Ecuador

11:40 - 12:00pm: Embedding Adaptability into Cognitive Computing: A Secure Self-Adaptive Architecture
 Yong-Kyu Jung
 Gannon University, USA;
 Georgia Institute of Technology, Georgia, USA

12:00 - 12:20pm: Early Detection of Weak Signals in News with KIM/KEM Maps and Transformer-based Language Models
 Edison Loza-Aguirre, Alexis Miranda-Carrillo, Lorena Recalde
 Universidad San Francisco de Quito, Colegio de Administracion
 de Empresas, Quito, Ecuador;
 Escuela Politecnica Nacional, Departamento de Informatica y
 Ciencias de la Computacion, Quito, Ecuador

12:20 - 01:00pm: LUNCH (On Your Own)

December 04

SESSION 16B-THU: (CONCURRENT SESSION WITH ON-SITE SESSION 11A-THU & ON-LINE SESSIONS)**COMPUTATIONAL BIOLOGY + HEALTH INFORMATICS + IMAGING SCIENCE**<https://www.american-cse.org/csci2025/RTHI><https://www.american-cse.org/csci2025/RTCB><https://www.american-cse.org/csci2025/RTPC>**Chairs: Dr. Tanwir Zaman****Walmart Labs, USA****December 04, 2025 (Thursday); 01:00pm - 02:00pm****(LOCATION: Ballrooms Galleria B-C)**

- 01:00 - 01:20pm:** Advances in Skin Cancer Detection by Leveraging Machine Learning and Deep Neural Networks for Early Diagnosis
 Ibidun Christiana Obagbuwa, Anthony Tsetse, Olayemi Jebba,
 and Oluwadamilola Samuel Obagbuwa
 Department of Mathematical Sciences and Computing, Walter Sisulu
 University, Mthatha, South Africa;
 School of Computing & Analytics, Northern Kentucky University,
 Highland Heights, Kentucky, USA;
 Department of Information Technology, New Brunswick Community
 College (NBCC) Woodstock Campus, Woodstock, NB, Canada
- 01:20 - 01:40pm:** Graph Structure Matters: Graph Design and Feature Selection for Accurate MIC Prediction in Salmonella Species
 Ganga Gireesan, Moses B. Ayoola, Athish Ram Das,
 Bindu Nanduri, Mahalingam Ramkumar
 Department of Comparative Biomedical Sciences, College of
 Veterinary Medicine, Mississippi State University Starkville,
 Mississippi, USA;
 Department of Computer Science and Engineering, Mississippi
 State University Starkville, Mississippi, USA
- 01:40 - 02:00pm:** Classification of COVID-19 Chest Radiographs Using LSTM-RNN Optimized with Grey Wolf Optimization and Modified Grey Wolf Optimization
 Roseline Oluwaseun Ogundokun, Rotimi-William Bello,
 Pius Adewale Owolawi, Chunling Tu, Etienne Van Wyk
 Department of Computer Systems Engineering, Tshwane University
 of Technology, Pretoria, South Africa;
 Department of Computer Science, Redeemer's University Ede,
 Osun State, Nigeria

SESSION 17B-THU: (CONCURRENT SESSION WITH ON-SITE SESSION 12A-THU & ON-LINE SESSIONS)
SIGNAL & IMAGE PROCESSING, COMPUTER VISION & PATTERN RECOGNITION +
EDUCATION & CURRICULUM DEVELOPEMENT
<https://www.american-cse.org/csci2025/RTPC>
<https://www.american-cse.org/csci2025/RTED>
Chairs: Dr. Tanwir Zaman
Walmart Labs, USA
December 04, 2025 (Thursday); 02:00pm - 03:20pm
(LOCATION: Ballrooms Galleria B-C)

- 02:00 - 02:20pm: Facial Recognition by Using Ensemble and Network of Quantum Convolutional Neural Network
 Sharmendra Desiboyina, Emre Tokgoz
 State University of New York - Farmingdale Campus, New York, USA;
 Clark University, Worcester, Massachusetts, USA
- 02:20 - 02:40pm: Lightweight RTK-GPS-Guided Two-Stage Anomaly Detection for Safety-Critical Infrastructure Inspection
 Joseph Volcic, Matthew P. Horvath Jr., Darrin Hanna, Paul Fleck
 Department of Electrical and Computer Engineering,
 Oakland University, Rochester, Michigan, USA;
 Dataspeed, Inc., Rochester Hills, Michigan, USA
- 02:40 - 03:00pm: Geometry-Aware Head Contour Extraction from Overhead Images: A Key Step in Improving Automated Detection of Craniosynostosis
 Mingxuan Wei, Ovidiu Daescu
 Xi'an Jiaotong-Liverpool University, Suzhou, China;
 University of Texas at Dallas, Richardson, Texas, USA
- 03:00 - 03:20pm: A Curriculum Framework for Algorithms and Data Structures: Enhancing Skill Development and Critical Thinking
 Dewan Tanvir Ahmed
 Department of Computer Science,
 University of North Carolina at Charlotte, North Carolina, USA

**03:20 - 03:40pm: BREAK (Refreshments) & POSTER SESSIONS
(LOCATION: Lotus Ballroom 2-3)**

- 0. Silent Sensors: Exploring Cemeteries as IoT Nodes in Smart Urban Networks
Alexis Brown, James Braman
Community College of Baltimore County, Baltimore, Maryland, USA
- 0. Development of an LLM-Assisted Programming Learning Support System Based on Stepwise Refinement Process
Yuta Harada, Atsuo Hazeyama, Shoichi Nakamura, and Youzou Miyadera
Tokyo Gakugei University, Koganei, Tokyo, Japan;
Fukushima University, Fukushima, Japan
- 0. Development of a Reflection Map Creation Support System Using LLMs to Foster Self-Directed and Autonomous Learning
Shoichi Furukawa, Atsuo Hazeyama, Shoichi Nakamura, and Youzou Miyadera
Tokyo Gakugei University, Koganei, Tokyo, Japan;
Fukushima University, Fukushima, Japan
- 0. LLM-Based Support System for Research Topic Decision via Research Information and Notes Organization
Shuichiro Shindo, Shoichi Nakamura, Youzou Miyadera
Tokyo Gakugei University, Koganei, Tokyo, Japan;
Fukushima University, Fukushima, Japan
- 0. Classical Machine Learning vs. Large Language Models for Prostate Cancer Detection
Islam Omar, Mona Y. Elshinawy, Mostafa A. Arafa, Danny M. Rabah, Abdel-Hameed A. Badawy
Klipsch School of ECE, New Mexico State University, Las Cruces, New Mexico, USA;
Engineering Technology and Surveying Engineering Department, New Mexico State University, Las Cruces, New Mexico, USA;
The Cancer Research Chair, Surgery Department, College of Medicine, King Saud University, Riyadh, Saudi Arabia;
Surgery Department, College of Medicine, King Saud University, Riyadh, Saudi Arabia;
Department of Urology, King Faisal Specialist Hospital and Research Center, Riyadh, Saudi Arabia;
Department of Epidemiology, High Institute of Public Health, Alexandria University, Alexandria, Egypt

SESSION 18B-THU: (CONCURRENT SESSION WITH ON-SITE SESSION 13A-THU & ON-LINE SESSIONS)
COMPUTATIONAL SCIENCE + ARTIFICIAL INTELLIGENCE + APPLICATIONS

<https://www.american-cse.org/csci2025/RTAI>

<https://www.american-cse.org/csci2025/RTCS>

<https://www.american-cse.org/csci2025/RTHI>

<https://www.american-cse.org/csci2025/RTCW>

<https://www.american-cse.org/csci2025/RTSC>

Chairs: Dr. Jun Zhang

Department of Computer Science and Engineering Technology,

University of Maryland Eastern Shore, Princess Anne, Maryland, USA

December 04, 2025 (Thursday); 03:40pm - 05:20pm

(LOCATION: Ballrooms Galleria B-C)

03:40 - 04:00pm: Industrial Defect Detection with Explainable Guided Tile Selection

Rui Nascimento, Dibet Garcia Gonzalez, Manuel F. Silva,

Vitor Filipe, Luis Rocha

INESC TEC - Institute for Systems and Computer Engineering

Technology and Science, Portugal;

UTAD - University of Tras-os-Montes and Alto Douro, Portugal;

SENTINEL - Sentinelconcept, Lda, Portugal;

ISEP - Polytechnic of Porto, Portugal

04:00 - 04:20pm: A Technique View for the Computation of Taylor's Coefficients

Jun Zhang

Department of Computer Science and Engineering Technology,

University of Maryland Eastern Shore, Princess Anne, Maryland, USA

04:20 - 04:40pm: The Cost of a Ping: Neurophysiological Evidence of Attention

Disruption from Mobile Notifications

Sebastian Valladares, Nabil Hossain, Valentina Nino, Maria Valero

George Walton Comprehensive High School, Marietta, Georgia, USA;

Department of Information Technology, Kennesaw State University,

Marietta, Georgia, USA;

Department of Industrial and Systems Engineering,

Kennesaw State University, Marietta, Georgia, USA

04:40 - 05:00pm: Zero Trust Architectures and Artificial Intelligence

Syed Ali Noaman, Joe Francom, Alin Zamfiroiu

Utah Tech University, Saint George, Utah, USA;

Bucharest University of Economic Studies, Bucharest, Romania;

National Institute for Research & Development in

Informatics - ICI Bucharest, Romania

05:00 - 05:20pm: Enhancing Task Offloading in Vehicular Edge Computing with
Digital Twin and Graph-Based DRL

Ihsan Ullah, Qaisar Ali, Muhammad Ashraf, Youn-Hee Han

Department of Computer Science and Engineering,

Yuan Ze University, Taoyuan, Taiwan;

Department of Computer Engineering, Balochistan University

of Information Technology, Quetta, Pakistan;

Future Convergence Engineering, Korea University of

Technology and Education, Cheonan, South Korea

05:20 - 05:40pm: FREE SLOT

05:40 - 06:00pm: FREE SLOT

December 04

07:00 - 09:00pm: CONFERENCE RECEPTION DINNER + SOCIALIZING & NETWORKING
December 4, 2025 (Thursday); 07:00pm - 09:00pm
(LOCATION: Velvet Room)

ON-LINE PRESENTATIONS (DECEMBER 04 - Thursday)

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PLEASE NOTE THAT ALL DATES AND TIMES MENTIONED IN THIS DOCUMENT ARE IN TERMS OF LAS VEGAS TIME-ZONE (USA Pacific Time-zone).

The conference has granted the request from the administrations of 9 institutions to live stream the online sessions for their classrooms (one connection per classroom / institution).

IMPORTANT: If possible, speakers are expected to connect at the beginning of the session in which their papers are scheduled for presentation. This will help the admin of the session to manage the logistical process. In case of questions about the online/ZOOM presentations during the conference days (Dec. 03-05, 2025), please contact csci.zoom@gmail.com

SESSION 6-ONLINE: COMPUTATIONAL SCIENCE + HIGH-PERFORMANCE COMPUTING + SECURITY + EDUCATION AND SOFTWARE ENGINEERING

<https://www.american-cse.org/csci2025/RTCW>

<https://www.american-cse.org/csci2025/RTED>

<https://www.american-cse.org/csci2025/RTPD>

<https://www.american-cse.org/csci2025/RTSE>

CHAIR: Dr. Farid Gharehmohammadi

Co-Founder and CEO, Verify Radiology Images Consultants, LLC. Texas, USA
December 04, 2025 (Thursday); 06:00am - 08:00am
(ONLINE - ZOOM)

- 06:00 - 06:20am: Forensics and Logs Analysis: LLMs-Based Log Analysis and Correlation for Cyber Forensics
Sharina Eisa Aljallaf, Mohammed Hussain, Monther Aldwairi
College of Technological Innovation, Zayed University, Dubai, UAE
- 06:20 - 06:40am: Negative Result on Multiple Testing of Poisson's Distribution for Students Providing Multiple Evaluations
Carmen Elena Stoenoiu, Oana Moldovan, Lorentz Jantschi
Technical University of Cluj-Napoca, Cluj-Napoca CJ, Romania
- 06:40 - 07:00am: Code Obfuscation with LLVM: An Analysis of the Impact of the LLVM Version
Alberto Valderas-Gonzalez, Francisco J. Rosa, Jose Miguel Aragon-Jurado, Juan Carlos de la Torre, and Bernabe Dorronsoro
Department of Computer Engineering, University of Cadiz, Cadiz, Spain
- 07:00 - 07:20am: Performance and Consumption Analysis of LU Matrix Decomposition on Heterogeneous and Traditional Multicore CPUs
Francisco J. Rosa, Alberto Valderas-Gonzalez, Jose M. Aragon-Jurado, Juan Carlos de la Torre, and Bernabe Dorronsoro
Department of Computer Engineering, University of Cadiz, Cadiz, Spain

December 04

- 07:20 - 07:40am: Approach for Management Antipattern Detection on Scrum
Software Projects
Pamela Flores Carlos Anchundia, Marcela Mosquera, Jorge Segovia
Escuela Politecnica Nacional, Ecuador
- 07:40 - 08:00am: Using Llama 3.3 to Discover Novel Hypergraph Coarsening Heuristics
Yin Yee Williams (Kan)
Amadeus IT Services UK Limited, UK;
Imperial College London, UK

December 04

SESSION 7-ONLINE: MOBILE APPLICATIONS + LARGE LANGUAGE MODELS + COMPUTATIONAL SCIENCE +**HEALTH INFORMATICS + ARTIFICIAL INTELLIGENCE**<https://www.american-cse.org/csci2025/RTMC><https://www.american-cse.org/csci2025/RTCS><https://www.american-cse.org/csci2025/RTHI><https://www.american-cse.org/csci2025/RTAI><https://www.american-cse.org/LLM2025/>**CHAIR: Dr. Farid Gharehmohammadi****Co-Founder and CEO, Verify Radiology Images Consultants, LLC. Texas, USA****December 04, 2025 (Thursday); 08:00am - 10:20am****(ONLINE - ZOOM)**

- 08:00 - 08:20am:** Enhancing Mobile App Quality through Unified Automated Functional and User Interface Testing with Appium-Selenium Integration
Kazeem Oluwaseyi Adaramaja, Hussein Adekola Aderinko, Emmanuel Masa-Ibi, Amos Adeboye Igbinyemi, Ishaya Gambo
Information Technology, GTBank Cote D'Ivoire;
Department of Computer Science, Texas State University San Marcos, Texas, USA;
Department of Electrical and Computer Engineering, Morgan State University, Baltimore, Maryland, USA; Department of Computer Science and Engineering, Obafemi Awolowo University, Ile-Ife, Nigeria; Department of Software Engineering, Obafemi Awolowo University, Ile-Ife, Nigeria
- 08:20 - 08:40am:** Leveraging Large Language Models for Cybersecurity Compliance: An Exploratory Study in ISO 27001 Compliance Workflow
Ahmed Salman, Michael Goldsmith, Zeeshan Zulkifl
Department of Computer Science, University of Oxford, Oxford, UK;
Faculty of Science and Engineering, Macquarie University, Sydney, Australia
- 08:40 - 09:00am:** Dynamic Learning: A Mathematical Framework for Autonomous Knowledge Acquisition in Artificial Intelligence
Gang Wang, Mark Nixon
Emerson Automation Solutions, Round Rock, Texas, USA;
University of Connecticut, Storrs, Connecticut, USA
- 09:00 - 09:20am:** Multi-hop Natural Language Question Answering on Graphs by Using LLMs
Elika Bozorgi, Krys Kochut
School of Computing, The University of Georgia, Athens, Georgia, USA
- 09:20 - 09:40am:** Aerodynamic Trajectory Impact: Reliability of Blade Geometry in Compressor and Turbine Application for Power Generation and Electricity Supply
Braide S. Lucky, Dan Horsfall, Kenneth E. Orie
Department of Electrical and Electronics Engineering, Faculty of Engineering, Rivers State University, Nigeria
- 09:40 - 10:00am:** Beyond Accuracy: Deep Learning for Clinically Usable and Accessible Capsule Endoscopy Diagnostics
Aram Kurdi, Adrian N. Evans
Department of Electronic and Electrical Engineering, University of Bath, Bath, UK
- 10:00 - 10:20am:** A Reactive System for Inappropriate Content Moderation: An Open Source Prototype
Patricio Zambrano, Jenny Torres, Carlos Anchundia, Johan Illicachi, and Adrian Paguay
Department of Informatics and Computer Science, Escuela Politecnica Nacional, Quito, Ecuador

10:20am - 03:20pm: FREE SLOTS/PERIOD

December 04

**SESSION 8-ONLINE: COMPUTATIONAL SCIENCE AND COMPUTATIONAL INTELLIGENCE + AI +
LARGE LANGUAGE MODELS + EDUCATION**

<https://www.american-cse.org/LLM2025/>
<https://www.american-cse.org/csci2025/RTBD>
<https://www.american-cse.org/csci2025/RTPD>
<https://www.american-cse.org/csci2025/RTNA>
<https://www.american-cse.org/csci2025/RTAI>
<https://www.american-cse.org/csci2025/RTOT>
<https://www.american-cse.org/csci2025/RTPC>
<https://www.american-cse.org/csci2025/RTED>

CHAIR: Dr. Farid Gharehmohammadi

Co-Founder and CEO, Verify Radiology Images Consultants, LLC. Texas, USA
 December 04, 2025 (Thursday); 03:20pm - 07:00pm
 (ONLINE - ZOOM)

03:20 - 03:40pm: The Agentic Leash: Extracting Causal Feedback Fuzzy Cognitive
 Maps with LLMs
 Akash Kumar Panda, Olaoluwa Adigun, Bart Kosko
 University of Southern California, Los Angeles, California, USA;
 Florida International University, Miami, Florida, USA

03:40 - 04:00pm: Kryptonite for Small LLMs: When Simple Words Break Reasoning
 Salvatore Vella, Salah Sharieh, Alex Ferworn
 Toronto Metropolitan University, Toronto, Canada

04:00 - 04:20pm: A Quantization-Aware Evaluation Framework for Medical Language
 Model Selection in RAG Clinical Pipelines
 Filippo Bianchini, Edoardo Bianchini, Cyril Wyon-Boyault,
 Mathilde Proponnet-Guerault, Eric Folco, Nicolas Vuillermé, and
 Massimo Mecella
 Sapienza Università di Roma. Department of Computer, Control and
 Management Engineering Antonio Ruberti - DIAG, Italy;
 Sapienza Università di Roma, Department of Neurosciences, Mental
 Health, and Sensory Organs - NESMOS, Italy;
 Université Grenoble Alpes Autonomie, Gerontologie, E-santé,
 Imagerie et Société - AGEIS, France;
 OneTrek SAS, France

04:20 - 04:40pm: The Only Combinatorial Optimization LDF: RIP until Quantum
 Computers are Developed
 Shuichi Shinmura
 Seikei University, Emeritus Professor, Doc. Sci., Japan

04:40 - 05:00pm: CONTINUE ...
 The Only Combinatorial Optimization LDF: RIP until Quantum
 Computers are Developed
 Shuichi Shinmura
 Seikei University, Emeritus Professor, Doc. Sci., Japan

05:00 - 05:20pm: Accelerating HNSW in RAG: A Dynamic Cache Method Based on
 Topic-Biased Access Patterns
 Rei Masuda, Kazuma Iwamoto, Hinata Yokoyama, Kazuaki Ando,
 Hitoshi Kamei
 Graduate School of Science for Creative Emergence, Kagawa
 University, Takamatsu, Japan;
 Faculty of Engineering and Design, Kagawa University,
 Takamatsu, Japan;
 Integrated Center for Informatics, Kagawa University,
 Takamatsu, Japan

- 05:20 - 05:40pm: AI-Cache: A Caching Method Applying Application Inference Targeting File Sharing Servers
Keiichiro Higashihara, Daigo Michishita, Koji Kida, Hitoshi Kamei
Graduate School of Science for Creative Emergence,
Kagawa University, Takamatsu, Japan;
NEC Corporation, Tokyo, Japan;
Faculty of Engineering and Design, Kagawa University,
Takamatsu, Japan;
Integrated Center for Informatics, Kagawa University,
Takamatsu, Japan
- 05:40 - 06:00pm: Adaptation and Language Challenges in Tutorial Formats for Discrete Mathematics
Alan Bowen-James, Mary Ruth Freislich
Universal Business School Sydney, Group Colleges Australia, Sydney, Australia;
School of Mathematics and Statistics, University of New South Wales,
Sydney, Australia
- 06:00 - 06:20pm: Leakage Period Localization Method for Water Distribution Network Based on Continuous-Time Dynamic Graph
Fan Zhao, Sheng Zhang, Yu Chao, Qianjiu Wang
Department of Information Science, Xi'an University of
Technology, Xi'an, China;
State Key Laboratory of Eco-hydraulics in Northwest Arid
Region, Xi'an University of Technology, Xi'an, China
- 06:20 - 06:40pm: Intelligent Safety Warning System for Bridge Crane Operation Scenarios
Zijian Lei, Yaokun Chen., Fujia Wei, Xueyu Zhao, Xinggan Peng
China Machinery Innovation Technology Development (Chongqing) Co.,
Ltd., Chongqing, China;
CMCU Engineering Co., Ltd., Chongqing, China
- 06:40 - 07:00pm: Attention-Guided Dual Feature Extractor for Bearing Fault Diagnosis from Vibration Data
Saif Ullah, Muhammad Umar, Jong-Myon Kim
Department of Electrical, Electronics, and Computer Engineering,
University of Ulsan, Ulsan, South Korea

December 05

DECEMBER 05, 2025 (Friday)

THERE ARE THREE SETS OF CONCURRENT SESSIONS ON December 05, 2025; TWO are ON-SITE PRESENTATIONS (FACE-TO-FACE) IN BALLROOMS GALLERIA D-E AND BALLROOMS GALLERIA B-C; AND THE THIRD IS ONLINE (THE ZOOM LINKS are ALREADY PROVIDED TO SPEAKERS AND ALL REGISTERED AUTHORS).

7:00am - 3:00pm: REGISTRATION
(LOCATION: Lotus Ballrooms 2-3)

07:20 - 08-20am: CONTINENTAL BREAKFAST
(LOCATION: Lotus Ballrooms 2-3)

ON-SITE PRESENTATIONS & ACTIVITIES (DECEMBER 05, Friday)
LOCATION: Ballrooms Galleria D-E

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December 05

**SESSION 19A-FRI: (CONCURRENT SESSION WITH ON-SITE SESSION 25B-FRI & ON-LINE SESSIONS)
EDUCATION, LEARNING METHODS, CAPSTONE PROJECTS, AND
TEACHING STYLES AND TOOLS**

<https://www.american-cse.org/csci2024/RTED>

Chairs: Dr. Weizheng Gao

**Department of Mathematics, Computer Science, and
Engineering Technology, Elizabeth City State University,
Elizabeth City, North Carolina, USA**

December 05, 2025 (Friday); 08:20am - 10:00am

(LOCATION: Ballrooms Galleria D-E)

- 08:20 - 08:40am:** The Effect of Active Learning on Learning Achievement in Food Rheology among Food Science and Technology Undergraduates
Supatchalee Sirichokworakit, Nuntaporn Aukkanit, Shutchapol Chopvitayakun, Kunyanuth Kularbphetong
Faculty of Science and Technology, Suan Sunandha Rajabhat University, Bangkok, Thailand
- 08:40 - 09:00am:** Improving Capstone Team Outcomes through Dynamic Skill Matching and Preference Alignment
Brandon Pardi, Garret Castro, Michael Pisman, Avash Adhikari, and Santosh Chandrasekhar
University of California, Davis, Davis, California, USA;
University of California, Merced, Merced, California, USA
- 09:00 - 09:20am:** Project-Based Active Learning in Searching Algorithms: Assessing Learning Gains via Pretest-Posttest and Correlation Analysis
Kunyanuth Kularbphetong, Nareenart Raksuntorn, Nuntaporn Aukkanit, Supatchalee Sirichokworakit, and Pattarapan Roonrakwit
Suan Sunandha Rajabhat University, Bangkok, Thailand;
Silpakorn University, Bangkok, Thailand
- 09:20 - 09:40am:** Beyond Cut Scores: Multi-Method Machine Learning Framework for Mathematics Placement Optimization
Julian D. Allagan, Dasia A. Singleton, Shanae N. Perry, Gabrielle C. Morgan, Essence A. Morgan
Department of Mathematics, Computer Science, and Engineering Technology, Elizabeth City State University, North Carolina, USA
- 09:40 - 10:00am:** Problem-Solving Using Logic and Reasoning, Mathematics, Algorithms, Python, and Generative AI: Part Four
Shanzhen Gao, Weizheng Gao*
Reginald F Lewis College of Business, Virginia State University, Petersburg, Virginia, USA;
Department of Mathematics, Computer Science, and Engineering Technology, Elizabeth City State University, Elizabeth City, North Carolina, USA
- 10:00 - 10:20am: BREAK (Refreshments)**
(LOCATION: Lotus Ballrooms 2-3)

December 05

SESSION 20A-FRI: (CONCURRENT SESSION WITH ON-SITE SESSION 26B-FRI & ON-LINE SESSIONS)

LARGE LANGUAGE MODELS + NOVEL APPLICATIONS

<https://www.american-cse.org/LLM2025/>

Chairs: Prof. Dr. Marc Jansen

Applied Computer Science, Computer Science Institute,

University of Applied Sciences Ruhr West. Germany

December 05, 2025 (Friday); 10:20am - 11:20am

(LOCATION: Ballrooms Galleria D-E)

- 10:20 - 10:40am:** Comparative Analysis of Large Language Models for Multimodal Agricultural Intelligence in Precision Nursery Management Systems
Harshitha Manjunatha, Shekhar Suman Borah, Prabha Sundaravadive, Lakshman Tamil, H. Allen Torbert, Siva Kumpatla, Patricia Knight
The University of Texas at Dallas, Richardson, Texas, USA;
The University of Texas at Tyler, Tyler, Texas, USA;
USDA ARS, Auburn, Alabama, USA;
USDA ARS, Poplarville, Mississippi, USA;
Mississippi State University, Poplarville, Mississippi, USA
- 10:40 - 11:00am:** Enhancing Introduction to Computer and Data Science based on Python Course Using GEN AI
Genady Grabarnik, Serge Yaskolko
St. John's University, USA; College Board, USA
- 11:00 - 11:20am:** Generative AI for Robotic Autonomy and Planning
Vida Vakilian, Reza Abdoolee
California State University Channel Islands, California, USA

December 05

SESSION 21A-FRI: (CONCURRENT SESSION WITH ON-SITE SESSION 27B-FRI & ON-LINE SESSIONS)

LARGE LANGUAGE MODELS + NOVEL APPLICATIONS AND ALGORITHMS

<https://www.american-cse.org/LLM2025/>

Chairs: Prof. Dr. Marc Jansen

Applied Computer Science, Computer Science Institute,

University of Applied Sciences Ruhr West. Germany

December 05, 2025 (Friday); 11:20am - 12:20pm

(LOCATION: Ballrooms Galleria D-E)

- 11:20 - 11:40am:** Toward Reliable AI-driven Autonomous Decision-Making:
Quantifying AI Alignment with Normative Standards
Xin-Wen Wu
University of Mary Washington, Fredericksburg, Virginia, USA
- 11:40 - 12:00pm:** KAN-FFN Replacements in Compact Transformers
Evgenii Ostanin, Nebojsa Djosic, Salah Sharieh,
Alexander Ferworn, Malek Sharieh
Toronto Metropolitan University, Toronto, Canada;
Holy Trinity School, Richmond Hill, Canada
- 12:00 - 12:20pm:** Time and Energy Consumption of a Large Language Model:
Quantization, Kernel Optimization, Energy Saving and Accuracy
Malek Belkahla, Gaetan Hains
ENSTA Paris, Palaiseau, France;
UPEC/LACL, Creteil, France
- 12:20 - 01:00pm: LUNCH (On Your Own)**

December 05

SESSION 22A-FRI: (CONCURRENT SESSION WITH ON-LINE SESSIONS)
LARGE LANGUAGE MODELS + GRAPH NEURAL NETWORKS
<https://www.american-cse.org/LLM2025/>
<https://www.american-cse.org/csci2025/RTAI>
Chairs: Dr. Pooya Tavallali
Iterative Health, USA
December 05, 2025 (Friday); 01:00pm - 02:00pm
(LOCATION: Ballrooms Galleria D-E)

01:00 - 01:20pm: An Intelligent Human-AI Collaboration Pipeline for Automated
 Extraction of PFAS Partition Coefficients
 Yeonbi Han, Yuemei Ye, Liang Zhao
 Stony Brook University, New York, USA;
 The Graduate Center and Lehman College,
 City University of New York, New York, USA

01:20 - 01:40pm: Evaluating Ensemble Learning for Robust Real Time Deepfake
 Detection
 Martin Jimenez Gil, Yetunde Folajimi, Salem Othman, and
 Leonidas Deligiannidis
 Wentworth Institute of Technology, Boston, MA, USA

01:40 - 02:00pm: Beyond Graph Neural Networks: Tree-Based Performance Prediction
 for LLMs Across GPU Architectures
 Karthick Panner Selvam, Mats Brorsson
 Interdisciplinary Center for Security, Reliability and Trust,
 University of Luxembourg, Luxembourg

SESSION 23A-FRI: (CONCURRENT SESSION WITH ON-LINE SESSIONS)
ARTIFICIAL INTELLIGENCE + PARALLEL ALGORITHMS
<https://www.american-cse.org/csci2025/RTAI>
<https://www.american-cse.org/csci2025/RTPD>
Chairs: Dr. Pooya Tavallali
Iterative Health, USA
December 05, 2025 (Friday); 02:00pm - 03:00pm
(LOCATION: Ballrooms Galleria D-E)

- 02:00 - 02:20pm: Hybrid CNN-ViT with Multi-Scale Feature Fusion for Multi-Class Chest X-ray Diagnosis
Momina Liaqat Ali, Xin Yang
Middle Tennessee State University, Murfreesboro, Tennessee, USA
- 02:20 - 02:40pm: Understanding CPU Limitation Mechanisms in Cloud-native Parallel Applications
Samuel Rac, Mats Brorsson
Interdisciplinary Center for Security, Reliability and Trust,
University of Luxembourg, Luxembourg
- 02:40 - 03:00pm: AI-Assisted Mobile Nutrition Analysis for Daily Monitoring via Image Processing of Guideline Daily Amounts (GDAs) Labelling
Nuntaporn Aukkanit, Shuchapol Chopvitayakun,
Supatchalee Sirichokworakit, Kunyanuth Kularbphettong
Faculty of Science and Technology,
Suan Sunandha Rajabhat University, Bangkok, Thailand
- 03:00 - 03:20pm: **BREAK (Refreshments) & POSTER SESSIONS**
(LOCATION: Lotus Ballroom 2-3)

December 05

SESSION 24A-FRI: (CONCURRENT SESSION WITH ON-LINE SESSIONS)

ARTIFICIAL INTELLIGENCE + IMAGING SCIENCE + COMPUTATIONAL BIOLOGY + SECURITY

<https://www.american-cse.org/csci2025/RTCB>

<https://www.american-cse.org/csci2025/RTPC>

<https://www.american-cse.org/csci2025/RTHI>

<https://www.american-cse.org/csci2025/RTHI>

<https://www.american-cse.org/LLM2025/>

Chairs: Prof. Emeritus Hamid R. Arabnia

University of Georgia, USA

December 05, 2025 (Friday); 03:20pm - 05:20pm

(LOCATION: Ballrooms Galleria D-E)

03:20 - 03:40pm: Beyond Words: How Well Can ChatGPT Classify Pneumonia from Chest X-Rays?

Pragna Prahallad, Pranathi Prahallad, (Lavanya Prahallad)

Emerald High School, Dublin, California

03:40 - 04:00pm: Rule-Based Hand Gesture Presentation Control Using MediaPipe and Keyboard-Mouse Hotkey Simulation

Shutchapol Chopvitayakun, Montean Rattanasiriwongwut, and Nuntaporn Aukkanit

Faculty of Science and Technology, Suan Sunandha Rajabhat University, Bangkok, Thailand;

Faculty of Information Technology and Digital Innovation, King Mongkut's Institute of Technology North Bangkok, Bangkok, Thailand

04:00 - 04:20pm: Towards a Segmentation of the Pectoral Muscle and Masses Present in Mammograms by Combining Modern and Traditional Techniques

Maria Perez, Lenin G. Falconi, Aura Conci

Escuela Politecnica Nacional, Quito, Ecuador;

Instituto de Computacao, Universidade Federal Fluminense, Niteroi - RJ, Brazil

04:20 - 04:40pm: Predicting Hospital Readmission in Diabetic Patients Using Machine Learning Approaches

Aprameya Deshpande, Anandaswarup Vadapalli (Lavanya Prahallad)

Dublin High School, Dublin, California, USA;

Research Spark Hub Inc.

04:40 - 05:00pm: An Analytical Study of Machine Learning Methods for Cyberattack Detection in Industrial Control Systems

Vishnu Vardhan Reddy Sheri, Ali Al-Sinayyid, Rohith Reddy Battula,

Jaya Chandra Gundeboina, Samuel Adewumi

Department of Mathematics and Computer Science, West Virginia State University, Institute, West Virginia State, USA

05:00 - 05:20pm: **CLOSING REMARKS**

December 05

DECEMBER 05, 2025 (Friday)

THERE ARE THREE SETS OF CONCURRENT SESSIONS ON December 05, 2025; TWO are ON-SITE PRESENTATIONS (FACE-TO-FACE) IN BALLROOMS GALLERIA D-E AND BALLROOMS GALLERIA B-C; AND THE THIRD IS ONLINE (THE ZOOM LINKS are ALREADY PROVIDED TO SPEAKERS AND ALL REGISTERED AUTHORS).

ON-SITE PRESENTATIONS & ACTIVITIES (DECEMBER 05, Friday)

LOCATION: Ballrooms Galleria B-C

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SESSION 25B-FRI: (CONCURRENT SESSION WITH ON-SITE SESSION 19A-FRI & ON-LINE SESSIONS)

COMPUTATIONAL SCIENCE + COMPUTATIONAL INTELLIGENCE +
COMPUTATIONAL BIOLOGY + SOCIAL MEDIA + COMMUNICATION SYSTEMS<https://www.american-cse.org/csci2025/RTOT><https://www.american-cse.org/csci2025/RTCS><https://www.american-cse.org/csci2025/RTMC><https://www.american-cse.org/csci2025/RTNA>

Chairs: Prof. Emeritus Hamid R. Arabnia

University of Georgia, USA

December 05, 2025 (Friday); 08:20am - 10:00am

(LOCATION: Ballrooms Galleria B-C)

- 08:20 - 08:40am: Scalability and Parallelism: IoT Infrastructures
Prof. Emeritus Hamid R. Arabnia
University of Georgia, USA
- 08:40 - 09:00am: Detecting Change Point or Anomaly Based on Rough Path Theory
Zhixing Tan, Kangrong Tan, Shozo Tokinaga
Waseda University, Japan;
Kurume University, Japan;
Kyushu University, Japan
- 09:00 - 09:20am: MIDI Control for Launching Mobile Device Applications
Dwight Deugo
The School of Computer Science, Carleton University,
Ottawa, Canada
- 09:20 - 09:40am: Synthetic Riboswitch Sequences for CVB3 Detection Across
Salt Concentrations
Jonathan Auyong, Marelyn Negrete, William Andreopoulos,
and Leila Khatib
Department of Computer Science, San Jose State University,
San Jose, California, USA;
Department of Biological Science, San Jose State University,
San Jose, California, USA
- 09:40 - 10:00am: Developing the SMART-ACE Framework: Social Media Analytics and
Research Translation to Advance Children's Environmental Health
Andrew Larkin, Dixie Jackson, Megan MacDonald,
Megan McClelland, Molly L. Kile, Perry Hystad
College of Health, Oregon State University, Corvallis,
Oregon, USA

December 05

10:00 - 10:20am: BREAK (Refreshments)
(LOCATION: Lotus Ballrooms 2-3)

SESSION 26B-FRI: (CONCURRENT SESSION WITH ON-SITE SESSION 20A-FRI & ON-LINE SESSIONS)
EDUCATION + PROGRAMMING + TOOLS
<https://www.american-cse.org/csci2025/RTED>
Chairs: Prof. Leonidas Deligiannidis +
Wentworth Institute of Technology, Boston, Massachusetts, USA
December 05, 2025 (Friday); 10:20am - 11:20am
(LOCATION: Ballrooms Galleria B-C)

10:20 - 10:40am: Methods for Estimating the Programming Logics in Latest
Exercise from Source Codes Submitted to Previous Assignments
Ryo Onuma, Sho Onami, Hiroki Nakayama, Kaito Sato,
Hiroaki Kaminaga, Youzou Miyadera, Shoichi Nakamura
Fukushima University, Fukushima, Japan;
Tokyo Gakugei University, Koganei, Tokyo, Japan

10:40 - 11:00am: Methods for Summarization of the Context Graph in Elaboration
Processes of Research Documents
Sho Onami, Ryo Onuma, Hiroki Nakayama, Hiroaki Kaminaga,
Youzou Miyadera, Shoichi Nakamura
Fukushima University, Kanayagawa, Fukushima-shi,
Fukushima, Japan;
Tokyo Gakugei University, Nukuikitamachi, Koganei-shi,
Tokyo, Japan

11:00 - 11:20am: Extracting the Differences Between a Presenter's Emphasis
and Listeners' Attention Points
Misaki Abe, Sho Onami, Ryo Onuma, Hiroki Nakayama,
Youzou Miyadera, Shoichi Nakamura
Fukushima University, Fukushima, Japan;
Tokyo Gakugei University, Koganei, Tokyo, Japan

December 05

SESSION 27B-FRI: (CONCURRENT SESSION WITH ON-SITE SESSION 21A-FRI & ON-LINE SESSIONS)

ARTIFICIAL INTELLIGENCE + SOCIAL NETWORKING

<https://www.american-cse.org/csci2025/RTCW>

<https://www.american-cse.org/csci2025/RTAI>

<https://www.american-cse.org/csci2025/RTNA>

Chairs: Prof. George Dimitoglou

Hood College, Frederick, Maryland, USA

December 05, 2025 (Friday); 11:20am - 12:40pm

(LOCATION: Ballrooms Galleria B-C)

- 11:20 - 11:40am:** Enhancing Cyber Defense with a Modular Machine Learning Framework for Real-Time Phishing Detection
Dejene Dedefa, Adeoluwa Afolabi, Agustina Lorda
Department of Computer Science, Lincoln University,
Philadelphia, PA, USA
- 11:40 - 12:00pm:** Network of Quantum Neural Networks
Emre Tokgoz, Sharmendra Desiboyina
State University of New York, Farmingdale Campus, New York, USA;
Clark University, Worcester, MA, USA
- 12:00 - 12:20pm:** Visualization of Opinion Trends to Support Understanding Discussions Among Communities of Video Viewers
Ryota Matsumoto, Hiroki Nakayama, Ryo Onuma, Hiroaki Kaminaga,
Youzou Miyadera, Shoichi Nakamura
Fukushima University, Fukushima, Japan;
Tokyo Gakugei University, Koganei, Tokyo, Japan
- 12:20 - 12:40pm:** Visualization of Others' Judgment Tendencies in Identifying Useful Disaster Alerts on Social Media
Sho Abe, Hiroki Nakayama, Ryo Onuma, Hiroaki Kaminaga,
Youzou Miyadera, Shoichi Nakamura
Fukushima University, Fukushima, Japan;
Tokyo Gakugei University, Koganei, Tokyo, Japan
- 12:40 - 01:20pm: LUNCH (On Your Own)**

December 05

SESSION 28B-FRI: (CONCURRENT SESSION WITH ON-SITE SESSION 23A-FRI/22A-FRI & ON-LINE SESSIONS)
COMPUTATIONAL INTELLIGENCE + EDUCATION + HEALTH INFORMATICS + COMPUTER VISION
<https://www.american-cse.org/csci2025/RTHI>
<https://www.american-cse.org/csci2025/RTHI>
<https://www.american-cse.org/csci2025/RTED>
<https://www.american-cse.org/csci2025/RTCI>

Chairs: Dr. Weizheng Gao

Department of Mathematics, Computer Science, and
 Engineering Technology, Elizabeth City State University,
 Elizabeth City, North Carolina, USA

December 05, 2025 (Friday); 01:20pm – 03:00pm
 (LOCATION: Ballrooms Galleria B-C)

01:20 - 01:40pm: FREE SLOT

01:40 - 02:00pm: AMHAT: Multimodal Pipeline for Privacy-Preserving Stress Screening
 From Speech, Language, and Interaction Traces
 Mehdi Ghayoumi, Elena M. Nye, Cory Liu
 Cybersecurity Department, State University of New York (SUNY) at
 Canton, New York, USA

02:00 - 02:20pm: Investing vs. Gambling: A Case Study on Retirement Planning and
 Wealth Management
 Shanzhen Gao, Weizheng Gao*
 Reginald F Lewis College of Business, Virginia State University,
 Petersburg, Virginia, USA;
 Department of Mathematics, Computer Science, and Engineering
 Technology, Elizabeth City State University, Elizabeth City,
 North Carolina, USA

02:20 - 02:40pm: Solving Large Feature Selection Problems using an Improved NSGA-II
 Nicolas Paz-Tralma, Bryan Gonzalez-Ramirez, Elizabeth Montero
 Departamento de Informatica, Universidad Tecnica Federico Santa Maria,
 Chile

02:40 - 03:00pm: FREE SLOT

03:00 - 03:20pm: BREAK (Refreshments) & POSTER SESSIONS
(LOCATION: Lotus Ballroom 2-3)

03:20 - 03:40pm: FREE SLOT

03:40 - 04:00pm: FREE SLOT

04:00 - 04:20pm: FREE SLOT

04:20 - 04:40pm: FREE SLOT

04:40 - 05:00pm: FREE SLOT

05:00 - 05:20pm: CLOSING REMARKS (GO TO Ballrooms Galleria D-E)

December 05

ON-LINE PRESENTATIONS (DECEMBER 05 - Friday)

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PLEASE NOTE THAT ALL DATES AND TIMES MENTIONED IN THIS DOCUMENT ARE IN TERMS OF LAS VEGAS TIME-ZONE (USA Pacific Time-zone).

The conference has granted the request from the administrations of 9 institutions to live stream the online sessions for their classrooms (one connection per classroom / institution).

IMPORTANT: If possible, speakers are expected to connect at the beginning of the session in which their papers are scheduled for presentation. This will help the admin of the session to manage the logistical process. In case of questions about the online/ZOOM presentations during the conference days (Dec. 03-05, 2025), please contact csci.zoom@gmail.com

SESSION 9-ONLINE: ARTIFICIAL INTELLIGENCE + SOCIAL NETWORK ANALYSIS + DATA SCIENCE + HPC

<https://www.american-cse.org/csci2025/RTNA>

<https://www.american-cse.org/csci2025/RTAI>

<https://www.american-cse.org/csci2025/RTBD>

<https://www.american-cse.org/csci2025/RTPD>

CHAIR: Adarsh Mittal

University of Wisconsin Madison, USA & Nvidia, USA

December 05, 2025 (Friday); 06:00am - 08:00am

(ONLINE - ZOOM)

- 06:00 - 06:20am: Customer Churn Prediction Based on Sentiment Score
Shadha H. Al-Safi, Ahmed Rafea, Mona Farouk
Computer Science and Engineering Department,
American University in Cairo, Egypt;
Computer Engineering Department, Cairo University, Egypt
- 06:20 - 06:40am: An Employee-Centric Holistic Framework for AI Adoption in Digital Transformation of SMEs
Kimmo Kiiveri, Jyrki Liesivuori, Seppo Virtanen, Jouni Isoaho
University of Turku, Finland
- 06:40 - 07:00am: Twinleaf Chain: A Variable Precision Rough Set Based Approach for Classification
Xuguang Chen
Department of Computer Science, Saint Martin's University,
Lacey, Washington, USA
- 07:00 - 07:20am: A Fuzzy Approach to Record Linkages
Pratik K. Biswas
Artificial Intelligence and Data Science,
Verizon Communications, Basking Ridge, New Jersey, USA
- 07:20 - 07:40am: Controller for Android Navigation with Discretized Inputs (CANDI)
Rishan Patel, Grant Zhang, Fatimaezzahra Labaaj
Mississippi School for Mathematics and Science, Columbus,
Mississippi, USA
- 07:40 - 08:00am: Fault Tolerant Reconfigurable ML Multiprocessor
Tangrui Li, Justin Y. Shi, Matteo Spatola, Hongzheng Wang
Temple University, Philadelphia, PA, USA

SESSION 10-ONLINE: ARTIFICIAL INTELLIGENCE + SOCIAL NETWORK ANALYSIS + SECURITY AND APPLICATIONS<https://www.american-cse.org/csci2025/RTAI><https://www.american-cse.org/csci2025/RTNA><https://www.american-cse.org/csci2025/RTCW>**CHAIR: Adarsh Mittal**

University of Wisconsin Madison, USA & Nvidia, USA

December 05, 2025 (Friday); 08:00am - 10:00am

(ONLINE - ZOOM)

- 08:00 - 08:20am: GAC-LSTM: A Genetic Algorithm with Caching-Enhanced LSTM for PM 2.5 Forecasting
Nazli Mehrazar, Michael P. McGuire
Towson University, Towson, Maryland, USA
- 08:20 - 08:40am: Leveraging the Power of AI and Social Interactions to Restore Trust in Public Polls
Amr Akmal Abouelmagd, Amr Hilal
Department of Computer Science, Tennessee Technological University, Cookeville, Tennessee, USA
- 08:40 - 09:00am: The Rationale and Implementation of a Collection-Based Probabilistic Inference Engine
Feng-Jen Yang
Department of Computer Science, Florida Polytechnic University, Lakeland, Florida, USA
- 09:00 - 09:20am: CryNet: An Empirical Study Toward a Versatile IRC Botnet Framework for Realistic Cybersecurity Assessments
Sean Naughton, Bingyu Liu, Ashar Neyaz, Leonidas Deligiannidis
Wentworth Institute of Technology, Boston, MA, USA
- 09:20 - 09:40am: SpoofTrackBench: Interpretable AI for Spoof-Aware UAV Tracking and Benchmarking
Van Le, Tan Le
Virginia Polytechnic Institute and State University, Blacksburg, Virginia, USA;
School of Engineering, Architecture and Aviation, Hampton University, Hampton, Virginia, USA
- 09:40 - 10:00am: Assessing the Effectiveness of Large Language Models and Social Media Data for Early Traffic-Incident Detection
Ceylin Ece, Alberto Garcia-Robledo, Mahboobeh Zangiabady
University of Twente, Enschede, The Netherlands;
SECIHTI-CentroGeo, Queretaro, Mexico

**SESSION 11-ONLINE: COMPUTATIONAL SCIENCE + HEALTH INFORMATICS + COMPUTATIONAL BIOLOGY
+ EDUCATION + CLOUD COMPUTING + ARTIFICIAL INTELLIGENCE**

<https://www.american-cse.org/csci2025/RTCS>

<https://www.american-cse.org/csci2025/RTHI>

<https://www.american-cse.org/csci2025/RTCB>

<https://www.american-cse.org/csci2025/RTED>

<https://www.american-cse.org/csci2025/RTCC>

<https://www.american-cse.org/csci2025/RTAI>

CHAIR: Adarsh Mittal

University of Wisconsin Madison, USA & Nvidia, USA

December 05, 2025 (Friday); 10:00am - 12:00pm

(ONLINE - ZOOM)

- 10:00 - 10:20am:** Fast Algorithm for Single Machine Scheduling of Unit-Length Jobs with Non-Renewable Resource Requirements to Minimize Maximum Job Lateness
Kevin Johedan Ramirez-Fuentes, Nodari Vakhania,
Jose Alberto Hernandez-Aguilar
Centro de Investigacion en Ciencias, UAEM, Mexico;
Facultad de Contaduria, Administracion e Informatica, UAEM, Mexico
- 10:20 - 10:40am:** A Hybrid Deep Learning Framework Integrating Convolutional Neural Networks and Vision Transformers for Automated Cardiovascular Disease Classification from ECG Images
Hussein Adekola Aderinko, Emmanuel Masa-Ibi,
Deborah Olaitan Taiwo, Ishaya Gambo, Saurabh Agarwal
Department of Computer Science, Texas State University San Marcos, Texas, USA;
Department of Electrical and Computer Engineering, Morgan State University, Baltimore, Maryland, USA;
Department of Computer Science and Engineering, Obafemi Awolowo University, Ile-Ife, Nigeria;
Department of Software Engineering, Obafemi Awolowo University, Ile-Ife, Nigeria;
Department of Information and Communication Engineering, Yeungnam University, Gyeongsan, Republic of Korea
- 10:40 - 11:00am:** Word2Vec-Enhanced Ensemble Learning for Protein Succinylation Site Prediction Using CNN-BiLSTM
Mohammad Hassanzadeh, Love Fadia, Alioune Ngom,
Mohammad El Yabroudi (Dr. Majid Ahmadi)
Electrical and Computer Engineering, Math and Computer Science, Lawrence Technological University, Southfield, Michigan, USA;
Electrical and Computer Engineering, University of Windsor, Windsor, Canada;
School of Computer Science, University of Windsor, Windsor, Canada

December 05

- 11:00 - 11:20am: An Enhanced School Curriculum to Better Prepare Students for
Education and Careers in Engineering, Mathematics, Science, and
The Military
Ashu M. G. Solo
Maverick Trailblazers Inc., Wilmington, Delaware, USA
- 11:20 - 11:40am: Towards Scalable Serverless Machine Learning
Ikshaku Goswami, Robert Chun
Department of Computer Science, San Jose State University,
California, USA
- 11:40 - 12:00pm: Sentence Simplification for Natural Language to Formal Logic
Translation
Roberto Milanese Jr., Adam Pease, Richard Thompson
Naval Postgraduate School, Monterey, California, USA

December 05

**SESSION 12-ONLINE: COMPUTATIONAL BIOLOGY + ARTIFICIAL INTELLIGENCE + DATA SCIENCE
+ SECURITY AND LARGE LANGUAGE MODELS**

<https://www.american-cse.org/csci2025/RTCB>

<https://www.american-cse.org/csci2025/RTAI>

<https://www.american-cse.org/csci2025/RTBD>

<https://www.american-cse.org/csci2025/RTCW>

<https://www.american-cse.org/LLM2025/>

CHAIR: Dr. Farzan Shenavarmasouleh

Medialab Inc, USA

December 05, 2025 (Friday); 12:00pm - 02:00pm

(ONLINE - ZOOM)

- 12:00 - 12:20pm: In-Context Learning in Genomic Language Models as an Evaluation Task
Aadit Kapoor, Wendy Lee
San Jose State University, San Jose, California, USA
- 12:20 - 12:40pm: Cross-Lingual Benchmarking for Image Captioning: Assessing Translation in Low-Resource Settings
Anahita Dinesh, Ching-Seh Wu, Robert Chun
San Jose State University, San Jose, California, USA
- 12:40 - 01:00pm: Q-Gini: A Multidimensional Inequality Index with Isolation of its Causal Drivers
Ray R. Hashemi, Omid M. Ardakani, Rushmila Shabneen, and Azita G. Bahrami
Department of Computer Science, Georgia Southern University, Savannah, Georgia, USA;
Department of Economics, Georgia Southern University, Savannah, Georgia, USA; IT Consultation, Savannah, Georgia, USA
- 01:00 - 01:20pm: Taking Cyber Warfare to the Airwaves: Virtualized EW and DEW Systems Using Sparse Arrays and Software Defined Radios
Jeffrey Wallace, William Edwards
Rocket Technology Systems LLC, Washington, DC, USA
- 01:20 - 01:40pm: E³-Guarded Generation: A Unified Framework for Provably Reducing LLM Hallucinations
Gang Wang, Mark Nixon
Emerson Automation Solutions, Round Rock, Texas, USA;
University of Connecticut, Storrs, Connecticut, USA
- 01:40 - 02:00pm: CeRIS-Tutor: An LLM-Based Tutoring Tool for Hardware-Software Co-Design in Computer Engineering Curriculum
Theoren Stroud, Shekhar Suman Borah, Prabha Sundaravadivel
The University of Texas at Tyler, Tyler, Texas, USA

SESSION 13-ONLINE: LARGE LANGUAGE MODELS AND APPLICATIONS<https://www.american-cse.org/LLM2025/>**CHAIR: Dr. Farzan Shenavarmasouleh****Medialab Inc, USA****December 05, 2025 (Friday); 02:00pm – 05:00pm****(ONLINE - ZOOM)**

- 02:00 - 02:20pm:** PCRLLM: Proof-Carrying Reasoning with Large Language Models under Stepwise Logical Constraints
Tangrui Li, Pei Wang, Hongzheng Wang, Christian Hahm, Matteo Spatola, Justin Shi
Temple University, Philadelphia, PA, USA
- 02:20 - 02:40pm:** Large Language Models for Education and Research: An Empirical and User Survey-based Analysis
Md. Mostafizer Rahman, Ariful Islam Shiplu,
Md Faizul Ibne Amin, Yutaka Watanobe, Lu Peng
Tulane University, New Orleans, Louisiana, USA;
Dhaka University of Engineering & Technology, Gazipur, Bangladesh;
The University of Aizu, Aizu-Wakamatsu, Fukushima, Japan
- 02:40 - 03:00pm:** Metaphor Detection and Translation for Representing Natural Language in Formal Logic
Jarrad Singley, Adam Pease, Richard Thompson
Naval Postgraduate School, Monterey, California, USA
- 03:00 - 03:20pm:** Ayna: A Novel LLM-Based Job Recruitment Plug-in
Sukaina Habib, Alvine B. Belle
Lassonde School of Engineering at York University, Toronto, Canada
- 03:20 - 03:40pm:** Using Generative AI and Gamification to Support the STEM Education - The Deep Dive System
Chencheng Zhang, Sarah Saad, Thomas Palazzolo,
Robert G. Reynolds, Ashley Lemke, John O'Shea, Calien O'Shea
Wayne State University, Detroit, Michigan, USA;
University of Wisconsin Milwaukee, Milwaukee, Wisconsin, USA;
University of Michigan, Ann Arbor, Michigan, USA;
North Dakota State University, Fargo, North Dakota, USA
- 03:40 - 04:00pm:** Adaptive Melodic-Entropy-Guided Preprocessing for Lightweight MIDI Generation Models
Huaiyu Zhang, Chengwei Lei
California State University, Bakersfield, California, USA
- 04:00 - 04:20pm:** Comparative Evaluation of Prompting Techniques for Forensic Video Analysis Using GPT-4o
Opeyemi Adeniran, Kelechi Nwachukwu, Anjolie Anthony,
David Nyarko, Tasmeer Alam, Temitope Ajibola, Kofi Nyarko
Morgan State University, Baltimore, Maryland, USA
- 04:20 - 04:40pm:** Utilizing Large Language Models to Structure and Analyze Large Unstructured Data Sources
Thomas J. Sigler, Haley R. Dozier, Ashley N. Abraham
Information Technology Laboratory, US Army Engineer Research and Development Center, Vicksburg, Mississippi, USA
- 04:40 - 05:00pm:** Convergence of Outputs When Two Large Language Models Interact in a Multi-Agent Setup
Aniruddha Maiti, Satya Nimmagadda, Kartha Veerya Jammuladinne,
Niladri Sengupta, Ananya Jana
West Virginia State University, Institute, West Virginia, USA;
Marshall University, Huntington, West Virginia, USA; Fractal Analytics Inc., USA

December 05

SESSION 14-ONLINE: ARTIFICIAL INTELLIGENCE + HEALTH INFORMATICS + SOFTWARE ENGINEERING

<https://www.american-cse.org/csci2025/RTSE>

<https://www.american-cse.org/csci2025/RTHI>

<https://www.american-cse.org/csci2025/RTAI>

CHAIR: Dr. Farzan Shenavarmasouleh

Medialab Inc, USA

December 05, 2025 (Friday); 05:00pm – 07:00pm

(ONLINE - ZOOM)

- 05:00 – 05:20pm: Visualizing Process and Memory Management Mechanisms
 Hanh Pham, Henry Becker, Kyle Wendholt, Manuel Reyes, Alec Lehmphul,
 Owen Pacchiana, Jack Lin, Michael Scotto, William Rubin,
 Mary Seelmann, Aaron Traver, Aleks Pilmanis, Christopher Brady,
 Charles Agudelo, Daniel Amoruso, Shelby Hinton, Marco Lemus,
 Jaedan Smith, Christian Collado, Tyler Wendover, Tevin Skeete,
 Joshua Morris, Michael Manzi, Aram Agajanian
 State University of New York at New Paltz, New York, USA
- 05:20 – 05:40pm: Predicting Non-Adherence in Remote Oncology Symptom Monitoring
 Using Sequence Learning
 Aref Smiley, Christina Echeverria, Kathi Mooney, Joseph Finkelstein
 Arizona Telemedicine Program, The University of Arizona, Tucson, Arizona, USA;
 College of Nursing, The University of Utah, Salt Lake City, Utah, USA
- 05:40 – 06:00pm: Early Identification of Dementia via Machine Learning Analysis of
 Health Care Utilization Patterns
 Wanting Cui, Joseph Finkelstein
 Arizona Telemedicine Program, University of Arizona, Tucson, Arizona, USA
- 06:00 – 06:20pm: Early Prediction of Aggressive Prostate Cancer Using Machine Learning and
 Electronic Health Records
 Wanting Cui, Joseph Finkelstein
 Arizona Telemedicine Program, University of Arizona, Tucson, Arizona, USA
- 06:20 – 06:40pm: Generative AI Driven Hybrid Vision-Language and Property Graph Pipeline
 for Reliable Information Retrieval
 Aakarsh Etar, Steven Valle, Jayesh Soni, Himanshu Upadhyay
 Department of Electrical & Computer Engineering, Applied Research Center,
 Florida International University, Miami, Florida, USA
- 06:40 – 07:00pm: Graph Neural Network Prediction of Frictional Force Networks in Wet
 Fine Grinding
 Corlbert Ayuk Ayuk, Olumide Ogunmodimu
 Department of Energy and Minerals Engineering,
 Pennsylvania State University, University Park, Pennsylvania, USA

LIST OF PRE-RECODED PRESENTATIONS / POST-CONFERENCE

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Authors and speakers were given the following presentation options:

OPTION 1: Presenting the paper on site at the conference.

OPTION 2: Presenting the paper remotely: using Zoom (interactive).

OPTION 3: Presenting the paper remotely (non-interactive).

The link to these pre-recorded presentations will later be included in the "Book of Abstracts" and will be made available on the CSCI 2025 and LLM 2025 web sites at:

<https://www.american-cse.org/LLM2025/>

<https://www.american-cse.org/csci2025/>

The list that appears below includes all those papers and posters whose authors will likely be providing pre-recorded presentations (OPTION 3).

CSCI-RTAI: Research Track on Artificial Intelligence

<https://www.american-cse.org/csci2025/RTAI>

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0. Integrating Explainability and Knowledge Graphs in Multi Agent Reinforcement Learning for Air Combat Simulation
Abderahim Salhi, Indu Shukla, Gary J. Briggs, James E. Ross, Haley R. Dozier, Ian D. Detwiller
United States Army Corps of Engineers, Vicksburg, Mississippi, USA;
RAND Corporation, Santa Monica, California, USA
0. Soil Classification using a ResNet50-EfficientNet Hybrid Model with Efficient Channel Attention
Abdulrahman Hassan Alhazmi, Saeed M. Alshahrani, Yahya Jaber Ghazwani
Department of Computer Science, College of Engineering and Computer Science, Jazan University, Jazan, Saudi Arabia;
Department of Computer Science, College of Computing and Information Technology, Shaqra University, Shaqra, Saudi Arabia;
Department of Computer Science, Applied College, Jazan University, Jazan, Saudi Arabia
0. Climate Prediction in the Jocotitlan Valley Using Linear Regression Techniques
Juan Alberto Antonio-Velazquez, Jaime Rosales-Davalos, Leopoldo Gil-Antonio, Marlem Guadalupe Escobar Reyes, Francisco Primero Primero, and Aurea Teresa Reyes Delgado
Tecnologico Nacional de Mexico: Tecnologico de Estudios Superiores de Jocotitlan Carretera Toluca-Atlacomulco KM 44.8 Ejido de San Juan y, San Agustin, 50700 Cdad. de Jocotitlan, Mexico;
Division de Estudios de Posgrado e Investigacion, Instituto Nacional Tecnológico de Mexico, IT Toluca, Av. Tecnológico s/n, Agricola Bellavista, 52149 Metepec, Mexico
0. eBPF-Enhanced Observability and Performance Optimization for AI/ML and Large Language Model Workloads: Production-Validated Kernel-Level Monitoring, Resource Scheduling, and Security Enforcement
Goutam Tadi
Platform Engineer at Astronomer.io, USA
0. Constrained Object Hierarchies as a Unified Theoretical Model for Intelligence and Intelligent Systems
Harris Wang
School of Computing and Information Systems, Athabasca University, Canada
0. Comparative Study of Evolutionary and Swarm Algorithms for Training Neural Network-based Acrobot Controllers
Hidehiko Okada
Kyoto Sangyo University, Motoyama, Kamigamo, Kita-ku, Kyoto, Japan
0. Prediction of Useful Daylight Illuminance in the Early Stages of Residential Floor Plan Design Using Conditional Generative Adversarial Networks
Morteza Khorsandnikoo, Parichehr Saboonchi, Mehdi Mostafavi, Gunther H. Filz
LSU Lightweight Structures Unit, Faculty of Architecture, Innsbruck Universitat, Innsbruck, Austria;
School of Architecture, College of Fine Arts, University of Tehran, Iran;
Faculty of Architecture, Bu-Ali Sina University, Hamedan, Iran
0. Multi-Level Text Feature Analysis for Detecting AI-Generated Content
Lining Yan, Haoru Ye, Tailin Pan, Baha Ihnaini
Department of Computer Science, Wenzhou-Kean University, Wenzhou, China

- 0. Multiclass Hate Speech Detection with RoBERTa-OTA: Integrating Transformer Attention and Graph Convolutional Networks
Mahmoud Abusager, Jamil Saquer
Missouri State University, Springfield, Missouri, USA

- 0. Automatic Workout Tracking using Support Vector Machine with Frequency Feature Engineering
John Brose, Cheol-Hong Min, Hassan Salamy
Department of Electrical & Computer Engineering, University of Saint Thomas, Saint Paul, MN, USA

- 0. Conceptualizing Trustworthiness of AI Systems
Mark Arinaitwe, Hassan Reza
University of North Dakota, Grand Forks, North Dakota, USA

- 0. Reducing Carbon Emissions in AI-Generated Videos by Harnessing Spatial Shifting Technique
Alexander Van Gerwen
Independent Researcher, California, USA

- 0. Enhanced RAG Driven LLM-NER for Parametric Completion of Assembly Documents
Chengye Ma, Jiapeng Bi, Linsen Ma, Junhao Geng
Northwestern Polytechnical University, Xi'an, Shaanxi, China;
CRRC Academy Co., Ltd., Beijing, China

- 0. In Quest of an Extensible Multi-Level Harm Taxonomy for Adversarial AI: Heart of Security, Ethical Risk Scoring and Resilience Analytics
Javed I. Khan, Sharmila Rahman Prithula
Kent State University, Kent, Ohio, USA

- 0. Not Ready for Prime Time: Generating Test Questions for Adult Learners with Large Language Models
Gabriel Lipow, Neil C. Rowe
U.S. Naval Postgraduate School, Monterey, California, USA

- 0. Authorship Verification for Academic Dishonesty in the Era of AI
Jun Jang, Thai Le
Oxford High School, Oxford, MS, USA;
Indiana University, Bloomington, Indiana, USA

- 0. Distilled Tree Models for Cardiovascular Risk Prediction from Imbalanced Clinical Data
Handry Serrano-Fabela, Rafael Rivera-Lopez, Erick de-la-Cruz-Hernandez, Daniela Hernandez-Barrios, Abraham Carrasco-Barradas, Marisol Cruz-Ramirez, Abraham Barradas-Cortes, Daniela Ortega Juarez
Departamento de Sistemas y Computacion, TecNM, Instituto Tecnologico de Veracruz, Veracruz, Mexico;
Division Academica Multidisciplinaria de Comalcalco, Universidad Juarez Autonoma de Tabasco, Comalcalco, Mexico;
Departamento de Ciencias Economico Administrativas, TecNM, Instituto Tecnologico de Veracruz, Veracruz, Mexico

- 0. A Contract-Driven, On-Device AI Pipeline for Accessible Campus Wayfinding
Sebastian Moyano Lopez, Johan Mantilla Pancho, Erika Anrrango Pastillo, Myriam Hernandez-Alvarez
Departamento de Informatica y Ciencias de la Computacion, Escuela Politecnica Nacional, Ladron de Guevara E11-25 y Andalucia, Quito, Ecuador

- 0. A Reactive System for Inappropriate Content Moderation: An Open Source Prototype
Patricio Zambrano, Jenny Torres, Carlos Anchundia, Johan Illicachi, and Adrian Paguay
Department of Informatics and Computer Science, Escuela Politecnica Nacional, Quito, Ecuador

0. Towards Tracing the Quality of Code Generated by LLM Back to the Training Code
Chen Wang, Yujun Huang, Lina Gong
College of Computer Science and Technology, Nanjing University of Aeronautics and Astronautics, Nanjing, China
0. Recommendations for the Design of a Customer Service Web Application for SMEs with Multimodal and Omnichannel Intelligent Agent
John Paul Mamani Quispe, Marjorie Belen Abanto Duenas, Eduardo Diaz, Carlos Iniguez-Jarrin
Universidad Peruana de Ciencias Aplicadas, Prolongacion Primavera, Lima, Peru;
Departamento de Informatica y Ciencias de la Computacion, Escuela Politecnica Nacional, Quito, Ecuador
0. MSD-PUGAN: An InSar 2-D Phase Unwrapping Method Based on Multi-Scale Discriminator Learning
Xiaomao Chen, Xiangfeng Li, Mingchuan Lei, Xiangzhen Zeng
Guangxi Key Laboratory of Precision Navigation Technology and Application, Guilin University of Electronic Technology, Guilin, China
0. Explainable AI Methods Toward Increased Trustworthiness of ML in Industrial Control Systems: A Systematic Literature Review with Reference Design and Results
Fabien Sechi, Erlend Sundet Siqveland, Nadia Saad Noori
Universitetet i Agder, Faculty of Engineering and Science,
Department of Information and Communication Technology, Norway
0. Image Acquisition by Stable Diffusion Adaptation with LoRA
Jessica Pamela Palate Moyolema, Rodolfo I. Meneguette
ICMC, University of Sao Paulo, Brazil
0. Advancing Wind Power Forecasting: A Comparative Analysis of Machine Learning and Deep Learning Approaches
Ali Jaber Almalki
College of Computing and Information Technology,
University of Bisha, Saudi Arabia
0. FTT-GRU: A Hybrid Fast Temporal Transformer with GRU for Remaining Useful Life Prediction
Varun Teja Chirukiri, Udaya Bhasker Cheeralala, Sandeep Kanta, Abdul Karim, Praveen Damacharla
Columbia Sportswear, Portland, Oregon, USA;
Independent Researcher, Bay Area, California, USA;
Northeastern University, Boston, MA, USA;
Department of Artificial Intelligence Convergence, Hallym University, Chuncheon, Gangwon, South Korea;
KINETICAI INC, The Woodlands, Texas, USA
0. Assessing the Effectiveness of Large Language Models and Social Media Data for Early Traffic-Incident Detection
Ceylin Ece, Alberto Garcia-Robledo, Mahboobeh Zangiabady
University of Twente, Enschede, The Netherlands;
SECIHTI-CentroGeo, Queretaro, Mexico
0. CosmoCore Affective Dream-Replay Reinforcement Learning for Code Generation
Santhosh Kumar Ravindran
Microsoft Corporation, Redmond, Washington, USA
0. Accurate 0 m Goal Achievement for CanSat Using Multi-Zone ToF Sensing and Object Detection
Miho Akiyama, Takuya Saito
Tokyo University of Information Sciences, Chiba-shi, Chiba, Japan
0. A Unified Framework for AI and Generative AI in Credit-Risk Classification

and Credit Card Fraud Detection

Brooke McClinton, Shanzhen Gao

Reginald F Lewis College of Business, Virginia State University,
Petersburg, Virginia, USA

- 0. Proper Voicing in AI Music Generation: A Q-Learning Approach
Brandon Miller, Ray R. Hashemi
Department of Computer Science, Georgia Southern University,
Statesboro, Georgia, USA

CSCI-RTBD: Research Track on Big Data and Data Science

<https://www.american-cse.org/csci2025/RTBD>

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0. SecureSense++: An AI-Optimized Intrusion Detection Framework for IoT Sensor Networks Using Feature Selection and Dimensionality Reduction on IoTNet24 Dataset
Roseline Oluwaseun Ogundokun, Rotimi-William Bello, Pius Adewale Owolawi, Etienne van Wyk
Department of Computer Systems Engineering, Tshwane University of Technology, Pretoria, South Africa;
Department of Computer Science, Redeemer's University Ede, Osun State, Nigeria
0. Containerized Architecture for Time Series Data Analysis and Machine Learning Using EdgeX Foundry IoT Platform
Io Masuyama, Katsumi Wasaki
Graduate School of Science and Technology, Shinshu University, Nagano, Japan;
Department of Electrical and Computer Engineering, Faculty of Engineering, Shinshu University, Nagano, Japan
0. Evacuation Route Planning Using a GPT Model Pretrained on Geographical Features and Hazard Map Data
Togo Horiuchi, Katsumi Wasaki
Department of Electrical and Computer Engineering, Faculty of Engineering, Shinshu University, Nagano, Japan
0. Multiregional Characterization of Traditional Street Cries in Mexico Using Acoustic Parameters
Agosto de la Gala-Urena, Julio-Alejandro Romero-Gonzalez, M. Florencia Assaneo, Diana-Margarita Cordova-Esparza, Juvenal Rodriguez-Resendiz, Ricardo Chaparro-Sanchez
Faculty of Informatics, Autonomous University of Queretaro, Queretaro, Mexico;
Institute of Neurobiology, National Autonomous University of Mexico, Juriquilla, Queretaro, Mexico;
Faculty of Engineering, Autonomous University of Queretaro, Queretaro, Mexico
0. AI-Enhanced Robustness in a Dementia-Detecting Memory Game
Jiapeng Xu, Claire Zou, Lawrence Tran, Ruoying Tang
Rancho Cucamonga High School, Rancho Cucamonga, California, USA;
Cambridge Rindge and Latin School, Cambridge, Massachusetts, USA;
Los Osos High School, Rancho Cucamonga, California, USA
0. Analyzing Keyword Variations and Trends in COVID-19 Twitter Data
Dan Li, Ching-yu Huang, Daehan Kwak
Department of Computer Science and Technology, Kean University, Union, New Jersey, USA

CSCI-RTCS: Research Track on Computational Science

<https://www.american-cse.org/csci2025/RTCS>

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- O. Toroidal Hertzprung's Problem
Michael Laszlo, Sumitra Mukherjee
Department of Computer Science, Nova Southeastern University,
Fort Lauderdale, Florida, USA
- O. On the Emergence of Harmonious Kingdoms
Michael Laszlo, Sumitra Mukherjee
Department of Computer Science, Nova Southeastern University,
Fort Lauderdale, Florida, USA
- O. A Mathematica Equational-Logic Proof of a Fundamental Commutativity Theorem
in Ortholattice Theory
Jack K. Horner
Independent Researcher, Lawrence, Kansas, USA
- O. A Robust Pick-and-Place Pipeline for Collaborative Robotic Arms: Toward
Autonomous Unmanned Kitchen Systems
Shymik Smith, Munene Kanampiu, Jinsuk Baek
Department of Computer Science, Winston-Salem State University,
Winston-Salem, North Carolina, USA
- O. An LS-DYNA Analysis of the Stress Sensitivity of a Jet-Engine Intake (Fan)
Blade to Bird Density in Bird Strikes
Jack K. Horner
Independent Researcher, Lawrence, Kansas, USA
- O. Overestimation of Smoke Backlayering Length and Critical Velocity in
Small-Scale Tunnels in FDS Simulations
Tatiana Kubisova, Lukas Valasek, Jan Glasa
Institute of Informatics, Slovak Academy of Sciences, Bratislava, Slovakia

CSCI-RTCI: Research Track on Computational Intelligence

<https://www.american-cse.org/csci2025/RTCI>

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- 0. A Multi-Objective Optimization Approach for Tuning Multivariable DMC Controllers
 Victor Huilcapi, Ricardo Cajo, Juan Manuel Herrero, Xavier Blasco
 Universidad Politecnica Salesiana, Guayaquil, Ecuador;
 Escuela Superior Politecnica del Litoral, ESPOL, Facultad de Ingenieria en Electricidad y Computacion, Campus Gustavo Galindo Km 30.5 Via Perimetral, Guayaquil, Ecuador;
 Instituto Universitario de Automatica e Informatica Industrial, Universitat Politecnica de Valencia, Valencia, Spain

- 0. A Benchmark Suite of Reddit-Derived Datasets for Mental Health Detection
 Khalid Hasan, Jamil Saquer
 Missouri State University, Springfield, Missouri, USA

- 0. A Review on Bioinspired Feature Selection for Text Clustering
 Joao Gaspar, Marco Antonio G. de Carvalho, Leandro de Castro
 School of Technology, State University of Campinas (Unicamp), R. Paschoal Marmo, Limeira, SP, Brazil;
 Dendritic: A Human-Centered AI and Data Science Institute, Florida Gulf Coast University (FGCU), Fort Myers, Florida, USA

- 0. Energy-Efficient RISC-V Accelerator for Transformer Models: A Hardware-Software Co-Design Approach for Edge AI and Education
 Elena Kakoulli
 Neapolis University Pafos, Intelligent Systems Laboratory, Department of Computer Science, Cyprus;
 Department of Electrical Engineering, and Computer Science and Engineering, Cyprus

- 0. Vehicle Routing Optimization Using Tunicate Swarm Algorithm: Comparative Insights with GA and PSO
 Leen Alakhras, Soud Khaled, Sana Abouelnour, Mohammed Azmi Al-Betar, and Ghazi Al-Naymat
 Artificial Intelligence Research Center (AIRC), College of Engineering and Information Technology, Ajman University, Ajman, United Arab Emirates (UAE)

CSCI-RTCB: Research Track on Computational Biology

<https://www.american-cse.org/csci2025/RTCB>

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0. Three-Dimensional Structure Prediction and Purification of Human Protein GPN2 to High Concentrations by Nickel Affinity Chromatography in Presence of Amino Acids for Improving Impurities Elimination

Jorge Juarez, Maria del Rayo Guevara-Villa, Anabel Sanchez Sanchez,

Raquel Diaz Hernandez, Leopoldo Altamirano Robles

Universidad Tecnologica de Manzanillo, Manzanilla, Colima, Mexico;

Benemerita Universidad Autonoma de Puebla, Puebla, Mexico;

Instituto Nacional de Astrofisica, Optica y Electronica, Tonantzintla,

Puebla, Mexico

CSCI-RTCW: Research Track on Cyber Warfare, Cyber Defense, & Cyber Security
<https://www.american-cse.org/csci2025/RTCW>

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0. Detecting Botnet-Infected IoT Devices Using Variational Autoencoders
Jorge Proano, Miguel Flores, Roberto Andrade
Departamento de Matematicas, Escuela Politecnica Nacional, Quito, Ecuador;
Departamento de Matematicas, Grupo MODES, Escuela Politecnica Nacional,
Quito, Ecuador;
Colegio de Ingenierias, Universidad San Francisco de Quito, Quito, Ecuador
0. Breaking the Guardrails: A Comprehensive Jailbreak Vulnerability Assessment
of Local Large Language Models
Bikesh Regmi, Binisa Giri, Chukwuemeka Duru, Kofi Nyarko
Morgan State University, Baltimore, Maryland, USA
0. Predicting Maritime Piracy: Timing, Trends, and Risk Assessment
John Michael Mizerany, Jing Chen
Department of Computer Science, Athens State University, Athens, Alabama, USA
0. NNHammerGuard: Leveraging DNNs' Fault Tolerance for Efficient Row Hammer Defense
Lening Wang, Saide Zhu, Biresh Kumar Joardar, Xin Fu
Department of Computer Science, Prairie View A&M University, USA;
Department of Electrical and Computer Engineering, University of Houston, USA;
Department of Information Science Technology, Penn State Berks, USA
0. LP-RFL: Enabling Low-Cost Robust Federated Learning via Label-guided Weight
Gradient Pruning to Against Backdoor Attacks
Lening Wang, Saide Zhu, Hanxiang Mu, Xin Fu
Department of Computer Science, Prairie View A&M University, USA;
Department of Electrical and Computer Engineering, University of Houston, USA;
Department of Information Science Technology, Penn State Berks, USA;
Liberal Arts and Science Academy, USA
0. A Review of Security Approaches to Protect School Wi-Fi Networks and
Children Online
Kholofelo Halefose, Topside Mathonsi, Tonderai Muchenje
Tshwane University of Technology, Pretoria, South Africa
0. Neural Networks for Ransomware Detection: A Comparative Evaluation of RNN,
CNN, and ANN Models
Luice Khamboo, Ali Al-Sinayyid, Samuel Adewumi, Vaishnavi Kottala,
Sheetal Phuyal, Zimren Drew Dixon
West Virginia State University, Institute, West Virginia, USA
0. Evaluating Random Forest, Decision Tree and Naive Bayes for Real Time DDoS
Detection in 5G Environments
Vaishnavi Kottala, Ali Al-Sinayyid, Venkatesh Mannuru, Luice Khamboo,
Samuel Adewumi, Joshua Gilliland
Department of Mathematics and Computer Science, West Virginia State
University, Institute, West Virginia State, USA;
Cybersecurity Innovation, Center, West Virginia State University, Institute,
West Virginia State, USA
0. A Framework for Improving Anomaly-Based Network Intrusion Detection in IoT
Systems Using Hybrid GWO with Jaya
Shaimaa Kouka, Mohammed Azmi Al-Betar, Qussai M. Yaseen
Artificial Intelligence Research Center (AIRC), Department of Information
Technology, Ajman University, Ajman, UAE
0. Scalable Distributed Query Processing with Smart Contracts
Shahad AlTamimi, Qasem Abu Al-Haija, Abdullah AlShuaibi
Department of Information Systems, University of Doha for Science and

Technology (UDST), Doha, Qatar;
Cybersecurity Department, Jordan University of Science and Technology,
Irbid, Jordan;
Department of Electrical Engineering, College of Engineering, King Faisal
University, Hofuf, Saudi Arabia;
Giannelis Lab, MSE, Cornell University, USA

- 0. RansomSphereGuard: Early Detection of Zero-day Ransomware Attacks Using
Deep Multi-sphere Support Vector Data Description
Masoumeh Sharafi, Mahdi Abadi, Amin Sahati, Ali Esmaili
Faculty of Electrical and Computer Engineering, Tarbiat Modares University,
Tehran, Iran
- 0. A Hybrid Architecture Integrating Graph Neural Networks and Long Short-Term
Memory Networks for Advanced Malware Detection and Analysis
Uma Kannan, Rajendran Swamidurai
Alabama State University, Montgomery, Alabama, USA

CSCI-RTPC: Research Track on Signal & Image Processing, Computer Vision & Pattern Recognition

<https://www.american-cse.org/csci2025/RTPC>

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- O. MSTT: A Spatio-Temporal Transformer for Multivariate Drought Forecasting in Hyper-Arid Regions Using Remote Sensing
Ali Ben Abbes, Ghazi Al-Naymat, Mohammed Azmi Al-Betar
Manouba School of Engineering, Manouba University, Manouba, Tunisia;
Artificial Intelligence Research Center (AIRC), College of Engineering and Information Technology, Ajman University, UAE
- O. Sharpness-Consistency Loss for SEM Image Denoising
Hyungjoo Park, Kyu Song, Channyong Yun, Dongyoung Jang, Beom-Seok Oh, and Kuk Jin Jang
Korea Electronics-Machinery Convergence Technology Institute, Seoul, Korea;
Seoul National University of Science and Technology, Seoul, Korea;
Hongik University, Seoul, Korea
- O. Progressive Transfer Learning with EfficientNetV2-B3 for Multi-Class OCT Image Classification
Ayoub Skouta, Abdelali Elmoufidi, Said Jai-Andaloussi, Ouail Ouchetto
Laboratory of Data Engineering and Intelligent Systems
- O. Efficient Segment Anything Model for Medical Image Analysis
Yurvan Ramjan, Serestina Viriri
University of KwaZulu-Natal, Durban, South Africa
- O. PoseGear: ConvNeXtPose-based Model to Identify Dynamic Fitness Exercise Postures in University Gyms
Esteban Cabrera, Franco Simonini, Eduardo Diaz
Universidad Peruana de Ciencias Aplicadas, Prolongacion Primavera, Lima, Peru
- O. BMMAN: A Bi-directional Masked Multimodal Attention Network for Enhanced Image-Text Sentiment Analysis
Mairidan Wushouer, Gulanbaier Tuerhong, Xu Guo
Guangdong University of Science and Technology, Dongguan, China;
Xinjiang University, Urumqi, Xinjiang, China
- O. Research on Nighttime Vehicle Image Enhancement Method Based on Zero-DCE
Han Gaining, Li Jialong, Luo Weiqun, Li Hong, Zhang Wei
School of Computer Science, Xianyang Normal University, Shaanxi, Xianyang, China;
School of Information Engineering, Tibet University for Nationalities, Shaanxi, Xianyang, China
- O. An Exploratory Study of Real-Time Road Anomaly Detection for Rider Assistance
Tiago Silva, Joao A. C. da Silva, Antonio Sousa, Vitor Filipe
University of Tras-os-Montes and Alto Douro (UTAD), Vila Real, Portugal;
INESC TEC - INESC Technology and Science, Porto, Portugal
- O. Construction of a Room Generation System in VR Spaces Based on Song Sensibilities
Misako Imono, Seiji Tsuchiya, Hirokazu Watabe
Department of Information Systems, Daido University, Nagoya, Japan;
Department of Intelligent Information Engineering and Science, Doshisha University, Kyoto, Japan

- 0. Computational Fatigue Detection from Physiological Signals with Calibrated Multimodal Fusion
Yeganeh Abdollahinejad, Sayed Mohsin Reza
Department of Computer Science and Mathematics, Pennsylvania State University, Harrisburg, PA, USA
- 0. Cross Platform FPGA Migration for YOLOv3-Tiny Object Detection: Verification Challenges and Visual Validation Framework
Shahrin Shahpar, Miaoqing Huang
Department of Electrical Engineering and Computer Science, University of Arkansas, Arkansas, USA
- 0. Deep Learning Approach for Detection of Facial Emotional Recognition
Emmanuel Akwah Kyei, Peter Appiahene, Obed Appiah, Justice Williams Asare, Martin Mabeifam Ujakpa, Emmanuel Freeman, William Leslie Brown-Aquaye
Faculty of Computing and Information Systems, Ghana Communication Technology University, Accra, Ghana;
Department of Information Technology and Decision Sciences, University of Energy and Natural Resources, Sunyani, Ghana;
Department of Computer Science and Informatics, University of Energy and Natural Resources, Sunyani, Ghana;
Faculty of Applied Science and Technology, Koforidua Technical University, Koforidua, Ghana;
School of Management, IT and Governance, University of KwaZulu-Natal, Durban, Kwazulu-Natal, South Africa

CSCI-RTSC: Research Track on Smart Cities and Smart Mobility

<https://www.american-cse.org/csci2025/RTSC>

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- 0. Governance, Inclusion, and Climate Action in Smart Cities: Insights from Singapore's Smart Nation Initiative
Thomas Menkhoff
Professor of Organisational Behaviour and Human Resources (Education),
Lee Kong Chian School of Business, Singapore Management University, Singapore
- 0. The Role of Artificial Intelligence in Shaping Sustainable Smart Cities: Challenges and Future Prospects
Sultan Ahmed Almalki
Najran University, Saudi Arabia
- 0. Assessing the Operational Effectiveness of e-Highways in Germany through Simulation
Nicole Muller, Suchithra Rajendran, Adithya Gupta
Department of Production, Operations and Logistics Management,
University of Passau, Passau, Germany;
Department of Industrial and Manufacturing Systems Engineering,
University of Missouri Columbia, Missouri, USA;
Department of Marketing, University of Missouri Columbia, Missouri, USA;
Rock Bridge High School, Columbia, Missouri, USA
- 0. GraphETS: Attention-Based Spatiotemporal Modeling for Robust Metro Passenger Flow Prediction
Ognjen Peric, Andrea Staino, Kenza Saiah, Nenad Mijatovic
Data and AI Group, Alstom, Saint-Ouen, France
- 0. Bridging Classical and Deep Learning Models for Urban Traffic Forecasting: An Integrated Comparative Study
Alexandra Gonzalez-Eras, Diego Vintimilla Espinoza
Universidad Tecnica Particular de Loja, Ecuador

CSCI-RTED: Research Track on Education (STEM Education, online Education, ABET, ...)
<https://www.american-cse.org/csci2025/RTED>

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0. Competency-Based Cybersecurity Education: Developing Industry-Aligned Curriculum Modules
 Major Houston, Jing Chen, Darren Waldrep
 Department of Computer Science, Athens State University, Athens, Alabama, USA;
 Department of Management, Athens State University, Athens, Alabama, USA
 0. Design and Implementation Strategies for Flipped Classroom Models in E-Learning Systems: A Post-COVID Perspective
 Latifa Abdullah Almusfar
 College of Business Administration, Management Information System Department,
 Imam Abdulrahman Bin Faisal University, Dammam, Saudi Arabia
 0. Enhancing High School Physics Education Through Computational Thinking: A Python-Based Simulation for Teaching Gravitational Concepts
 Larry Lam, Satyam Mittal, Matin Pirouz
 California State University, Fresno, California, USA
 0. Integrating Computational Thinking into High School Chemistry: Development of an Interactive Tool for Balancing Chemical Equations Using Matrix Algebra
 Donavon Geyer, Satyam Mittal, Matin Pirouz
 California State University, Fresno, California, USA
 0. Computational Learning and Agile Design in a Brazilian University Extension Program: The WebTech Network Experience
 Mariana Almeida Mendonca, Rommel Vieira Carneiro, Nilson Deon Cordeiro Filho, Alice Salim Khouri Antunes, Artur Bomtempo Colen, Sirius Victor Zevallos
 Pontifical Catholic University of Minas Gerais, Belo Horizonte, MG, Brazil
 0. Pedagogical Barriers to AR and VR Integration in Computing and Engineering Higher Education: A Systematic Review
 Emmanuel Akwah Kyei, Justice Williams Asare, Emmanuel Freeman, Martin Mabeifam Ujakpa, Israel Edem Agbehadji, Alfred Coleman
 Faculty of Computing and Information Systems, Ghana Communication Technology University, Accra, Ghana;
 G04IR Talent Academy, Pretoria, South Africa;
 Faculty of Applied Science and Technology, Koforidua Technical University, Koforidua, Ghana;
 School of Governance, IT and Management, University of KwaZulu Natal, Durban, South Africa;
 Honorary Research Fellow, Faculty of Accounting and Informatics, Durban University of Technology, Durban, South Africa
 0. The Role of AI in AR and VR for STEM Education: A Systematic Review of Cognitive Learning Outcomes
 Emmanuel Akwah Kyei, Emmanuel Freeman, Martin Mabeifam Ujakpa, Justice Williams Asare, Israel Edem Agbehadji, Alfred Coleman, William Leslie Brown-Acquaye
 Faculty of Computing and Information Systems, Ghana Communication Technology University, Accra, Ghana;
 G04IR Talent Academy, Pretoria, South Africa;
 Faculty of Applied Science and Technology, Koforidua Technical University, Koforidua, Ghana;
 School of Governance, IT and Management, University of KwaZulu Natal, Durban, South Africa;
 Faculty of Accounting and Informatics, Durban University of Technology, Durban, South Africa

- 0. Smart Glasses in Education
Mehdi Zargham, Jie Cheng
University of Dayton, Dayton, Ohio, USA;
Miami University, USA

CSCI-RTHI: Research Track on Health Informatics and Medical Systems

<https://www.american-cse.org/csci2025/RTHI>

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- O. A Review of Blockchain Technology in Healthcare
Nsovo B. Maluleke, Topside E. Mathonsi, Tshimangadzo M. Tshilongamulenzhe
Department of Information Technology, Tshwane University of Technology,
South Africa

- O. Evaluating Tree-Oriented Machine Learning Models in Cardiovascular
Disease Diagnosis
Sandhya Dharshini Sasikumar, Siva Sivatha Sindhu
West Windsor-Plainsboro High School South, Princeton Junction,
New Jersey, USA;
Nomura Securities International, New York, USA

- O. Electronic Health Records: Opportunities and Obstacles in Modern Healthcare
Devika Jagarlamudi
Product Manager, CurerTech, Chicago, Illinois, USA

- O. Heart Valvular Disease Detection Using Image-based Time Series and
Transfer Learning
Turky N. Alotaiby, Nuwayyir A. Alsahle, Gaseb N. Alotibi,
Rawad A. Alqahtani
King Abdulaziz City for Science and Technology, KACST, Riyadh,
Kingdom of Saudi Arabia;
Department of Computer Science and Information Technology, University
of Tabuk, Tabuk, Kingdom of Saudi Arabia

- O. Assessment of Demographic Disparities and Associated Impacts in
Dementia Diagnosis
Raffay Ahmed, Sampson Akwafuo
California State University, Fullerton, California, USA

- O. Rethinking Population Construction for Clinical AI: Patient Similarity
for Surgical Site Infection Prediction
Stephen Russell, Fabio Montes Suros, Kamal Babaei Sonbolabadi, Jia Zeng
Intelligent Systems and Robotics Department, University of West Florida,
Pensacola, Florida, USA;
Data Science Department, Jackson Health System, Miami, Florida, USA

- O. Unpacking Early Burnout Through Predictive Risk Boundaries: A Step Toward
Caregiver Burden Management In Healthcare Information Systems
Soarov Chakra Borty, Modupe Akintomide, Nazmus Sakib
Department of Information Technology, Kennesaw State University,
Georgia, USA;
WellStar School of Nursing, Kennesaw State University, Georgia, USA

- O. Machine Learning Approaches for Predicting Survival in Metastatic
Castration-Resistant Prostate Cancer
Xingyue Huo, Manish Kohli, Joseph Finkelstein
University of Arizona, Tucson, Arizona, USA;
University of Utah-Huntsman Cancer Institute, Salt Lake City, Utah, USA

- O. Unraveling Scopes & Challenges in Cardiovascular Risk Prediction Using
Knowledge Distillation Framework from Clinical to Wearable Sensor Data
Nursat Jahan, Nafisa Anjum, Sumit Chakravarty, Evelina Sterling,
Nazmus Sakib
Department of Computer Science, Kennesaw State University, Kennesaw,
Georgia, USA;
Department of Information Technology, Kennesaw State University,
Kennesaw, Georgia, USA;
Department of Electrical Engineering, Kennesaw State University,

Kennesaw, Georgia, USA;
 Department of Sociology and Criminal Justice, Kennesaw State University,
 Kennesaw, Georgia, USA

0. Cross-Modal Knowledge Distillation from Wearable Physiology to Wi-Fi
 CSI for Sensor-less Agitation Detection
 Awan-Ur Rahman, Tanbin Islam Rohan, Sumit Chakravarty,
 Mary Dioise Ramos, Nazmus Sakib
 Kennesaw State University, Kennesaw, Georgia, USA;
 School of Nursing, LSU Health New Orleans, Louisiana, USA;
 Khulna University of Engineering and Technology, Bangladesh
0. Sociodemographic Correlates of Tinnitus Occurrence Among Corona Health
 App Users During the COVID-19 Pandemic
 Michael Winter, Winfried Schlee, Berthold Langguth, Rudiger Pryss
 Institute of Clinical Epidemiology and Biometry, University of
 Wuerzburg, Wuerzburg, Germany;
 Institute of Medical Data Science, University Hospital of Wuerzburg,
 Wuerzburg, Germany;
 Eastern Switzerland University of Applied Sciences, St. Gallen,
 Switzerland;
 Department of Psychiatry and Psychotherapy, University of Regensburg,
 Regensburg, Germany
0. Beyond Accuracy: Deep Learning for Clinically Usable and Accessible
 Capsule Endoscopy Diagnostics
 Aram Kurdi, Adrian N. Evans
 Department of Electronic and Electrical Engineering,
 University of Bath, Bath, UK
0. Fall Risk of Older Adults in Pain Management
 Melissa S. Lee, Alexander W. Lee, Chelsea Yeh, Kyle Yeh
 Chino Premier Surgery Center, Chino, California, USA;
 Yale University, New Haven, CT, USA;
 Brown University, Providence, RI, USA
0. Mobile Application for the Detection and Classification of Anxiety,
 Stress and Depression through Convulsive Neural Networks
 Juan Alejandro Benites Diaz, Jorge Luis Mercado Fassiolli, Eduardo Diaz
 Universidad Peruana de Ciencias Aplicadas, Prolongacion Primavera, Lima, Peru
0. An ABI Architecture for Hospital Appointment Duration Prediction
 Sofia Toucas, Marco Carvalho, David Cruz, Joao Lopes, Tiago Guimaraes,
 Julio Duarte, Manuel Filipe Santos
 ALGORITMI/LASI Research Centre, University of Minho, Portugal
0. Guidelines for Designing Mobile Applications for Comprehensive Support
 of Stomach Cancer Patients in Lima: Medical and Emotional Assistance
 Martin Cifuentes_Mellado, Jean Morin_Fuentes, Eduardo Diaz,
 Carlos Iniguez-Jarrin
 Universidad Peruana de Ciencias Aplicadas, Prolongacion Primavera,
 Lima, Peru;
 Departamento de Informatica y Ciencias de la Computacion, Escuela
 Politecnica Nacional Quito - Ecuador
0. Determinants of Pandemic App Acceptance: Evidence from the Corona Health App
 Michael Winter, Marc Holfelder, Lena Mulansky, Johannes Schobel,
 Carsten Vogel, Lorina Buhr, Silke Schicktanz, Julian Haug, Fabian Haug,
 Helmut Greger, Peter Heuschmann, Rudiger Pryss
 Institute of Clinical Epidemiology and Biometry, University of Wuerzburg,
 Wuerzburg, Germany;
 Institute of Medical Data Science, University Hospital of Wuerzburg,
 Wuerzburg, Germany;
 LA2 GmbH, Erlangen, Germany;

Institute DigiHealth, Neu-Ulm University of Applied Sciences, Neu-Ulm, Germany;
Department of Medical Ethics and History of Medicine, University Medical
Center Gottingen, Gottingen, Germany;
Service Center Medical Informatics,
University Hospital Wuerzburg, Wuerzburg, Germany

- 0. Analysis of Gait Kinematic Parameters of Chinese Children Based on Human Pose Estimation Algorithm
Jincong Lin, Wei Lei, Yongtao Wang, Yi Li, Kunjie Xie, Yabo Yan
Department of Orthopedics, Xijing Hospital, Air Force Military Medical University, Xi'an, China;
School of Telecommunications Engineering, Xidian University, Xi'an, China;
Guangzhou Institute, Xidian University, Xi'an, China
- 0. Integrative Biomarker-Demographic Modeling for Lung Cancer Stratification
Nezamoddin N. Kachouie, Mohamed Jaber
Department of Mathematics and Systems Engineering, Florida Institute of Technology, Florida, USA;
Department of Electrical Engineering and Computer Science, College of Engineering and Science, Florida Institute of Technology, Florida, USA
- 0. Text-Based Detection of Autism Spectrum Disorder (ASD) Using State-of-the-Art LLMs
Manal N. Almutery, Rawad A. Alqahtani, Masheal M. Alghamdi, Turkey N. Alotaiby
King Abdulaziz City for Science and Technology (KACST),
Riyadh, Saudi Arabia

CSCI-RTMC: Research Track on Mobile Computing, Wireless Networks, & Security
<https://www.american-cse.org/csci2025/RTMC>

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- 0. Performance Evaluation and Application Analysis of Eleven Fundamental Intelligent Algorithms for WSN Coverage Optimization
Cao Mengru, Zhang Tianning, Zhang Renyu, Wang Dong
Jiangsu University of Science and Technology, Zhenjiang, China
- 0. Secure Wireless Multihop Communication by Cooperative Noise Signal Transmissions
Naoki Shinohara, Hiroaki Higaki
Robotics and Mechatronics, Tokyo Denki University, Tokyo, Japan

CSCI-RTSE: Research Track on Software Engineering

<https://www.american-cse.org/csci2025/RTSE>

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- O. A Review of Vulnerability Detection Algorithms in Software Code
Zelda P. Ramahlo, Topside E. Mathonsi, Tshimangadzo M. Tshilongamulenzhe
Department of Information Technology, Tshwane University of Technology,
South Africa
- O. Low-cost Autonomous Indoor Navigation in Unstructured Environments
John Tadrous
Gonzaga University, Spokane, Washington, USA
- O. iHelp: An mHealth-Driven Adaptive System for Care Partner Activation in
AD/ADRD Caregiving
Md. Mehedi Hasan, Soarov Chakra Borty, Mary Dioise Ramos, Nazmus Sakib
Department of Information Technology, Kennesaw State University, Georgia, USA;
Louisiana State University Health Sciences Center, Louisiana, USA
- O. Empowering Individual Donations: A Mobile Application to Connect Donors
and Recipients of Surplus Goods
Nasser Allheeb
College of Computer and Information Sciences, Information Systems Department,
King Saud University, Riyadh, Saudi Arabia

CSCI-RTOT: Research Track on Internet of Things & Internet of Everything

<https://www.american-cse.org/csci2025/RTOT>

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- 0. Trends, Challenges, and Future Directions of Wireless Sensor Networks in Underground Mining
Khomotso Modika, Topside E. Mathonsi, Tshimangadzo Mavin Tshilongamulenzhe
Department of Information Technology, Tshwane University of Technology, South Africa

- 0. Securing IoT Devices in Wireless Networks for Detection and Mitigation of MiTM and DDoS Attacks
Sara Alsloly, Ali Almalki
College of Computing and Information Technology, University of Bisha, Saudi Arabia

- 0. LSO-IFC: A Novel Lightweight and Secure Offloading Scheme for IoV in Fog-Cloud Confederation
Yashar Salami
Faculty of Computer and Information Technologies, Cappadocia University, Urgup, Nevsehir, Turkey

- 0. A Method for Estimating Residential Situations Based on Sequential Analysis of Acoustic Information Using a Pretrained Audio Event Classifier
Ryoya Yumoto, Katsumi Wasaki
Graduate School of Science and Technology, Shinshu University, Nagano, Japan;
Department of Electrical and Computer Engineering, Faculty of Engineering, Shinshu University, Nagano, Japan

- 0. A Review System Formed by Ensuring the Trustworthiness of DID and Acquiring Relationships Based on Verifiable Credentials
Yuki Deai, Katsumi Wasaki
Graduate School of Science and Technology, Shinshu University, Nagano, Japan;
Department of Electrical and Computer Engineering, Faculty of Engineering, Shinshu University, Nagano, Japan

- 0. Investigating Users' Perceptions of Privacy Notices in Wearable Internet of Things (IoT) Fitness Devices
Nnenna Christine Martin, Dale-Marie Wilson
Department of Software & Information Systems, University of North Carolina Charlotte, Charlotte, North Carolina, USA

- 0. Next-Gen IoT Security: Lightweight Cryptographic Protocols Powering the Internet of Everything
Majed S. Al Sayfi
Department of Cybersecurity, College of Computer Science and Engineering, Taibah University, Medina, Saudi Arabia

CSCI-RTNA: Research Track on Social Network Analysis, Social Media, & Mining
<https://www.american-cse.org/csci2025/RTNA>

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- 0. Clique-Based Global Community Hiding Against Overlapping Community Detection
Leyla Tekin, Belgin Ergenc Bostanoglu
Department of Computer Engineering, Izmir Institute of Technology,
Izmir, Turkey;
Department of Computer Technologies, Karahalli Vocational School,
Usak University, Usak, Turkey
- 0. A Multimodal Analytics Framework for Facial Expression and User
Comments Analysis
Fu-Shing Sun
Ball State University, Indiana, USA
- 0. Analyzing Group Polarization and Its Impact on Misinformation
Dissemination: A Quantitative Approach
Qiao Zhou, Guang Yu
School of Management, Harbin Institute of Technology, Harbin, China

CSCI-RTCC: Research Track on Cloud Computing and Data Centers
<https://www.american-cse.org/csci2025/RTCC>

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- O. AH-RF-SVM Based DDoS Detection for Cloud Computing
Austin Higginbotham, Ali Al-Sinayyid, Zimren Dixion, Samual Adewumi,
Vaishnavi Kottala, Sasidhar Kadiyala
West Virginia State University, Institute, West Virginia, USA;
CyberSecurity Innovation Center, West Virginia State University, Institute,
West Virginia, USA

- O. Modality-Aware Slicing of Multimodal AI Models for Edge Intelligence
Waleed Hassan Mubark, Md Yusuf Sarwar Uddin
Department of Computer Science, University of Missouri-Kansas City,
Missouri, USA;
Department of Business (MIS), University of Jeddah, Saudi Arabia

- O. An Explainable ML-based Approach to Predicting Virtual Machine Resource
Demand for High Resource Utilization in Clouds
Jinwei Liu, Kalab M. Kiros, Rui Gong, Clement G. Yedjou
Department of Computer and Information Sciences, Florida A&M University,
Tallahassee, Florida, USA;
Department of Informatics and Mathematics, Mercer University, Macon,
Georgia, USA;
Department of Biological Sciences, Florida A&M University,
Tallahassee, Florida, USA

CSCI-RTPD: Research Track on Parallel & Distributed Computing
<https://www.american-cse.org/csci2025/RTPD>

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- 0. Modeling Reliable and Dynamic Distributed Communication Networks
Seyed Roosta
Math, CS and Physics Department, Albany State University, Albany,
Georgia, USA

- 0. A Study on Integrated Framework for Copyright Protection based on
Multi-Signature in NFT
Hye-Young Kim
School of Games, Hongik University, South Korea

The 2025 International Conference on Large Language Models (LLM'25)

<https://www.american-cse.org/LLM2025/>

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- O. LangChain-Integrated LLMs and Knowledge Graphs for Multi-Agent Reinforcement Learning in Complex Air Combat Environments
Abderahim Salhi, Indu Shukla, Gary J. Briggs
United States Army Corps of Engineers, Vicksburg, Mississippi, USA;
RAND Corporation, Santa Monica, California, USA

- O. From Prediction to Persuasion: Integrating Time Series Forecasting and LLMs for Personalized Behavior Change
Ryan C. Holder, Diane J. Cook
University of California at Irvine, Irvine, California, USA;
Washington State University, Pullman, Washington, USA

- O. From Concept to Classroom: Design and Implementation of a Platform for Multimodal AI-Generated ESL Quizzes
Edgar Ceh-Varela, Yitzen Lizama-Peraza, Caleb Parten
Department of Mathematical Sciences, Eastern New Mexico University, Portales, New Mexico, USA;
Department of Languages and Literature, Eastern New Mexico University, Portales, New Mexico, USA

- O. The Implications of Large Language Model Integration for Bias in Lending Practices
Dalimar Flores-Torres, Roderick L. Lee, Jeremy J. Blum
The Pennsylvania State University, Harrisburg, Pennsylvania, USA

- O. Large Language Models for Education and Research: An Empirical and User Survey-based Analysis
Md. Mostafizer Rahman, Ariful Islam Shiplu, Md Faizul Ibne Amin, Yutaka Watanobe, Lu Peng
Tulane University, New Orleans, Louisiana, USA;
Dhaka University of Engineering & Technology, Gazipur, Bangladesh;
The University of Aizu, Aizu-Wakamatsu, Fukushima, Japan

- O. ChatGPT as a Tool for Business Insight: A Case Study in Mentorship Data Analysis
Ian Jin, Junghoon Song
Math and Science Academy, Woodbury, MN, USA;
Texas Wesleyan University, Fort Worth, Texas, USA

- O. Cross-Model Study of LLM Capabilities for Phishing Content Generation
Mahita Bontu
Westwood High School, Austin, Texas, USA

- O. What's in a Name? Pre-Crime Biases in Generative AI
Muhammed Dada, Weihai Xie, Sofie Vlaad, Catherine Stinson
School of Computing, Queen's University, Kingston, Ontario, Canada;
Philosophy Department, Queen's University, Kingston, Ontario, Canada;
School of Computing and Philosophy Department, Queen's University, Kingston, Ontario, Canada

- O. Enhancing Context-Aware Code Search with Knowledge Graphs and Large Language Models: An Experimental Study
Marlene Goncalves, Adelina Figueira, Graciela Perera
Valencian International University, Spain;
Universidad Simon Bolivar, Venezuela;
Roosevelt University, Chicago, Illinois, USA

- O. Intellectual and Developmental Disabilities: The Role of LLMs in Communication
May Lutzen, Marcello Balduccini

Department of Decision and System Sciences, Saint Joseph's University,
Philadelphia, PA, USA

- O. Robustness of Large Language Models to Perturbations in Text
Ayush Singh, Navpreet Singh, Shubham Vatsal
inQbator AI at eviCore Healthcare, Evernorth Health Services, USA
- O. "My Fault, Not the Machine's": A Survey on User Accountability in the Age
of AI-Assisted Work
Mriganka Biswas, Omogbai Oluwaseun Aruya, John Murray
University of Sunderland, Sunderland, UK;
University of Huddersfield, UK
- O. Enhancing Open01 Performance Using the SCoRe Framework for Self-Correction
and Reasoning
Madara Mendis, Uthayasanker Thayasivam
Department of Computer Science and Engineering, University of Moratuwa,
Sri Lanka
- O. LegalSumAI: Robust and Representative Legal Summarization with Large
Language Models
Purvi Sehgal, Sahithi Ankireddy, Saumya Chauhan
California Institute of Technology (Caltech), Pasadena, California, USA;
Stanford University, Palo Alto, California, USA
- O. Magnol.ai Plan & Execute: LLM-Guided Framework for No-Code Data Analysis
Hui Zhang, Guangchen Ruan, Hui Xiao, Ming Zhong, Andrew Kaczorek,
Jian Yang, Jian Zhu, Cara Gao, Matthew Elsom
Eli Lilly & Co., USA;
InnoCellence, Singapore
- O. A Proactive Approach for Predicting Equipment Downtime in an Enterprise
Jeffrey A. Young, Ray Hashemi
Department of Computer Science, Clemson University, Clemson,
South Carolina, USA;
Department of Computer Science, Georgia Southern University,
Savannah, Georgia, USA

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