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### **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.*

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**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, Noemí 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

**December 03**

**03:20 - 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 Topkapı 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)**

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**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)

**December 03**

**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 Topkapı 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 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

**December 03**

**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](mailto: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 Gharehmoammadi

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 Mnkanla, 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 Gharehmoammadi**

**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 Gharehmoammadi**

**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 Gharehmoammadi**

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 Gharehmoammadi  
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, Xuetong Cui, Bipul Simkhada, Luana O. Sawada, Mina Ezzati, Mercedes Cabrerozo, 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, Akron, Ohio, 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,

Jahnavi 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. Sickafuse, 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

**December 04**

**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

**December 04**

**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)

**December 04**

**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 Catalica 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/RTBI>  
<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

**December 04**

**SESSION 17B-THU:** (CONCURRENT SESSION WITH ON-SITE SESSION 12A-THU & ON-LINE SESSIONS)  
SIGNAL & IMAGE PROCESSING, COMPUTER VISION & PATTERN RECOGNITION +  
EDUCATION & CURRICULUM DEVELOPMENT  
<https://www.american-cse.org/csci2025/RTPC>  
<https://www.american-cse.org/csci2025/RTED>  
Chairs: Dr. Tanvir 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

**December 04**

**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

December 04

**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 Zamfirou

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)

**December 04**

**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](mailto: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 Gharehmoammadi

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 + ARTIFIAL 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 Gharehhammadi  
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 Gharehmoammadi  
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 Vuillerme, and Massimo Mecella  
Sapienza Universita di Roma. Department of Computer, Control and Management Engineering Antonio Ruberti - DIAG, Italy;  
Sapienza Universita di Roma, Department of Neurosciences, Mental Health, and Sensory Organs - NESMOS, Italy;  
Universita Grenoble Alpes Autonomie, Gerontologie, E-sante, Imagerie et Societe - AGEIS, France;  
OneTreck 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

**December 04**

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, Quanjiu 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 Sirichokworrakit, Nuntaporn Aukkanit, Shutchapol Chopvitayakun, Kunyanuth Kularbphettong 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 Kularbphettong, Nareenart Raksuntorn, Nuntaporn Aukkanit, Supatchalee Sirichokworrakit, 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 Abdolee  
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

**December 05**

**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, Shutchapol Chopvitayakun,  
Supatchalee Sirichokworrakit, 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/RTBI>  
<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](mailto:csci.zoom@gmail.com)

**December 05**

**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  
Compter 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

**December 05**

**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

**December 05**

**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 &amp; 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: E^3-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

**December 05**

**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-Agentic 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 Lehmpful,  
Owen Pacchiana, Jack Lin, Michael Scotto, William Rubin,  
Mary Seelmann, Aaron Traver, Aleks Pilmanis, Christopher Brady,  
Charles Agudelo, Daniel Amoruso, Shelby Hinton, Marco Lemus,  
Jaeden 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 Tecnologico de Mexico, IT Toluca, Av. Tecnologico 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 Abusaqer, 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 Sjqveland, 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 Cheerala, 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

- O. 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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0. Toroidal Hertzsprung's Problem  
Michael Laszlo, Sumitra Mukherjee  
Department of Computer Science, Nova Southeastern University,  
Fort Lauderdale, Florida, USA
0. On the Emergence of Harmonious Kingdoms  
Michael Laszlo, Sumitra Mukherjee  
Department of Computer Science, Nova Southeastern University,  
Fort Lauderdale, Florida, USA
0. A Mathematica Equational-Logic Proof of a Fundamental Commutativity Theorem  
in Ortholattice Theory  
Jack K. Horner  
Independent Researcher, Lawrence, Kansas, USA
0. 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
0. 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
0. 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

- O. 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
- O. 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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0. 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
0. 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
0. 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
0. Efficient Segment Anything Model for Medical Image Analysis  
Yurvan Ramjan, Serestina Viriri  
University of KwaZulu-Natal, Durban, South Africa
0. 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
0. BMMAN: A Bi-directional Masked Multimodal Attention Network for Enhanced Image-Text Sentiment Analysis  
Mairidan Wushouer, Gulabanbaier Tuerhong, Xu Guo  
Guangdong University of Science and Technology, Dongguan, China;  
Xinjiang University, Urumqi, Xinjiang, China
0. 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
0. 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
0. 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 Mabefam Ujakpa, Emmanuel Freeman, William Leslie Brown-Acquaye  
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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- O. 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
- O. 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
- O. 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
- O. 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
- O. 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
- O. 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;  
GO4IR 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
- O. 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;  
GO4IR 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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0. 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
0. 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
0. Electronic Health Records: Opportunities and Obstacles in Modern Healthcare  
Devika Jagarlamudi  
Product Manager, CurerTech, Chicago, Illinois, USA
0. 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
0. Assessment of Demographic Disparities and Associated Impacts in Dementia Diagnosis  
Raffay Ahmed, Sampson Akwafuo  
California State University, Fullerton, California, USA
0. 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
0. 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
0. 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
0. 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 Fassioli, 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 Politecica 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;  
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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, Turky 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 Allheeib  
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  
Khomotsa 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  
Ryoja 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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0. 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
0. 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
0. 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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0. 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
0. 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
0. 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
0. 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
0. 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
0. 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
0. Cross-Model Study of LLM Capabilities for Phishing Content Generation  
Mahita Bontu  
Westwood High School, Austin, Texas, USA
0. What's in a Name? Pre-Crime Biases in Generative AI  
Muhammed Dada, Weihan 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
0. 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
0. 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 OpenO1 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

## **NOTES**





