



2nd International Conference on

Next-Generation AI & Machine Learning



November 02-05, 2026



Boston, MA | Hybrid



Join Zoom Meeting

XYZ

Meeting ID: XYZ

Passcode: XYZ

07:50–08:20 Registrations and Badge Pickup

08:50–09:00 Opening Remarks

KEYNOTE & PLENARY TALKS

Moderator: Jordan Morrow, AgileOne · Torrance, CA
TBA, XYZ



Raymond Fu

08:45 – 09:20

Northeastern University, Boston, MA

Talk Title: Multimodal Reasoning for Human AI Interaction

Biography: Dr. Raymond Fu is a distinguished researcher, educator, and innovator in artificial intelligence, machine learning, and intelligent systems. As a NEU, COE Distinguished Professor at Northeastern University, he has made significant contributions to advancing data-driven technologies, computational intelligence, and AI-enabled solutions for complex real-world challenges.

His research spans machine learning, predictive analytics, intelligent decision-support systems, and emerging AI applications, with a focus on bridging fundamental research and practical implementation. Through collaborations with academia, industry, and technology partners, Dr. Fu has helped drive innovation in intelligent systems and digital transformation initiatives.

A recognized leader in the field, Dr. Fu continues to advance the development of next-generation AI technologies while mentoring future researchers and contributing to the broader AI research community.

Session Type: Keynote Speaker

Focus Area: Machine Learning, Artificial Intelligence, Intelligent Systems, Predictive Analytics, AI Applications.



Elizabeth Mynatt

09:20 – 09:55

Northeastern University · Boston, MA

Talk Title: Move Fast and Question Everything: Building the next generation of CS leadership for AI that actually works for everyone

Biography: Dr. Elizabeth Mynatt is a leading pioneer in human-computer interaction, ubiquitous computing, and assistive technologies. Her groundbreaking research has shaped how computing systems are designed to serve real human needs, spanning personal health informatics, computer-supported collaborative work, and human-centered computing. Over more than two decades, first at the Georgia Institute of Technology and now as Dean of the Khoury College of Computer Sciences at Northeastern University, she has led major research initiatives funded by the National Science Foundation and the National Institutes of Health. As Chair of CHI 2010, the premier international conference on human-computer interaction, Dr. Mynatt helped shape the direction of the field on a global stage. Her interdisciplinary work bridging computing, health, and human-centered design has been recognized with election to the American Academy of Arts and Sciences. Dr. Mynatt's pioneering perspective remains highly relevant to contemporary AI leadership, informing how the next generation of computing systems can be built to work for everyone.

Session Type: Keynote Speaker

Focus Area: Human-Computer Interaction, Ubiquitous Computing, Assistive Technologies, Health Informatics, Human-Centered Computing



Sanjay Padhi

Tag.Bio · Greater Boston

09:55 – 10:30

Talk Title: Beyond AI Assistants: Building AI Co-Scientists for Drug Discovery and Biomedical Research

Biography: Dr. Sanjay Padhi is a leading expert in artificial intelligence, advanced computing, and research innovation, serving as Head of AWS Research Initiatives at Amazon Web Services and Adjunct Professor at Brown University. His work focuses on accelerating scientific discovery and technological advancement through the application of AI, cloud computing, and large-scale data analytics.

With affiliations spanning AWS, Brown University, CERN, and UC San Diego, Dr. Padhi collaborates across academia, industry, and global research institutions to develop innovative solutions for complex scientific and technological challenges. His expertise encompasses machine learning, intelligent systems, cloud-enabled research infrastructure, and the practical deployment of AI at scale.

A recognized thought leader and advocate for interdisciplinary collaboration, Dr. Padhi has contributed to initiatives that bridge cutting-edge research with real-world applications. His work continues to drive innovation in Artificial Intelligence, digital transformation, and next-generation research ecosystems.

Session Type: Keynote Speaker

Focus Area: Artificial Intelligence, Cloud Computing, Research Innovation, Machine Learning, Large-Scale AI Systems, Scientific Computing



Coffee & Networking (10:30 – 10:50)



Jordan Morrow

AgileOne · Torrance, CA

10:50 – 11:25

Talk Title: Being Human in the Age of AI

Biography: Jordan Morrow is an internationally recognized leader in data, analytics, and Artificial Intelligence transformation. As SVP of Data & AI Transformation at AgileOne and Founder & CEO of Bodhi Data, he helps organizations harness the power of data and AI to drive innovation, strategic decision-making, and business growth.

Widely known for his expertise in data literacy, AI adoption, and digital transformation, Jordan has worked with organizations across industries to develop data-driven cultures and unlock the value of emerging technologies. His thought leadership focuses on bridging the gap between technology and business, enabling leaders and teams to make informed decisions in an increasingly AI-powered world.

A sought-after speaker, author, and advisor, Jordan is passionate about empowering organizations to build sustainable competitive advantages through data intelligence and responsible AI implementation. His work continues to influence how enterprises approach data strategy, workforce readiness, and AI-driven transformation.

Session Type: Keynote Speaker

Focus Area: Data & AI Transformation, Data Literacy, Enterprise AI Adoption, Digital Transformation, Data Strategy, AI Leadership



Xiong Hui

The Hong Kong University of Science and Technology · Hong Kong

11:25 – 12:00

Talk Title: Human-Guided Intelligence: Core Innovations and Scenarios of New Generation Embodied VLA

Biography: Dr. Hui Xiong is a leading pioneer in artificial intelligence, data mining, and mobile computing. His groundbreaking research has advanced the theoretical and applied foundations of large-scale data analytics and intelligent systems. Currently a Chair Professor and Founding Head of the Artificial Intelligence Thrust at the Hong Kong University of Science and Technology (Guangzhou), he previously served as a Distinguished Professor at Rutgers University and as Chief Scientist (Smart City) and Deputy Dean at Baidu



Research, where he led five research labs. Dr. Xiong is a Fellow of the ACM, IEEE, AAAI, AAAS, and CCF, and was named a 2025 ACM Fellow for his contributions to the advancement of artificial intelligence and mobile computing. He serves as ACM SIGKDD Secretary and Editor-in-Chief of Nature npj | Artificial Intelligence, and has received honors including the ACM SIGKDD Service Award and the AAAI Best Paper Award. His interdisciplinary research continues to shape the development of intelligent, human-guided systems, including embodied and vision-language-action technologies at the forefront of next-generation AI.

Session Type: Keynote Speaker

Focus Area: Artificial Intelligence, Data Mining, Mobile Computing, Embodied AI, Vision-Language-Action Systems



Group Photo & Lunch (11:25 – 13:00)



Bhaskara Rallabandi

13:00 – 13:35

Invinces Inc Dallas · Dallas, TX

Talk Title: Cognitive Infrastructure for the AI Era: AI-RAN, Autonomous Observability, and the Rise of 6G Intelligent Systems

Biography: Bhaskara Rallabandi is a technology entrepreneur, AI innovator, and business leader with extensive experience in Artificial Intelligence, enterprise technology, and digital transformation. As Co-Founder and Chief Technology Officer of Invinces Inc., he leads the development of innovative technology solutions that help organizations leverage AI, automation, and advanced analytics to drive business value and operational excellence.

With a strong background in software engineering, intelligent systems, and emerging technologies, Bhaskara has played a key role in designing and implementing scalable solutions for enterprises across multiple industries. His expertise spans AI strategy, machine learning applications, enterprise architecture, and technology-driven innovation.

A passionate advocate for technology adoption and innovation, Bhaskara actively collaborates with industry leaders, startups, and research communities to explore the evolving impact of Artificial Intelligence on business and society. His work continues to support organizations in navigating the opportunities and challenges of the AI-driven future.

Session Type: Keynote Speaker

Focus Area: Artificial Intelligence, Enterprise AI, Digital Transformation, Intelligent Automation, Technology Innovation, AI Strategy



Sanjay Ranka

13:35 – 14:10

University of Florida, Gainesville, FL

Talk Title: TBA

Biography: Dr. Sanjay Ranka is a globally recognized leader in High Performance Computing, Big Data Science, and Machine Learning. As a Distinguished Professor in the Department of Computer and Information Science and Engineering at the University of Florida, he leads research focused on developing efficient computational methods and machine learning techniques to model scientific phenomena, with impactful applications in improving healthcare quality and reducing traffic accidents. Combining academic excellence with industry leadership, Dr. Ranka served as Chief Technology Officer at Paramark, where he developed PILOT, a real-time optimization service that delivered over 10 million decisions a day with 99.99% uptime. He has co-authored one book, four monographs, and more than 350 journal and conference articles, with over 16,800 citations and multiple best paper honors at leading venues such as KDD and ACM-BCB. Dr. Ranka is a Fellow of IEEE, AAAS, AAIA, and AIIA, and a recipient of the 2020 IEEE TCCC Research Impact Award and the 2022 Distinguished Alumnus Award from IIT Kanpur. Through his editorial leadership, conference roles, and advisory work with startups and Fortune 500 companies, he continues to shape the future of intelligent, data-driven computing.

Session Type: Keynote Speaker

Focus Area: High Performance Computing, GPU Computing, Cloud Computing, Data Science, Machine Learning, Intelligent Transportation

Track 1: Foundations and Frontiers of Model Engineering

Oral Presentations

Chair: Sucharita Gopal, Boston University, Boston, MA

- 14:45 – 15:05 **Chen Wang**, Rensselaer Polytechnic Institute, Troy, NY
Tree Reconstruction from Noisy Triplet Queries: Hierarchical Clustering and Beyond
- 15:05 – 15:25 **Sucharita Gopal**, Boston University, Boston, MA
Real-Time Satellite Resilience: Agentic AI for Parametric Coastal and Riverine Insurance
- 15:25 – 15:45 **Enrico Santus**, Bloomberg, New York, NY
Beyond Text Classification: Agentic NLP, Graph Reasoning, and Geographical Bias in Financial AI
- 15:45 – 16:05 **Tetsuya Shimamura**, Graduate School of Science and Engineering, Saitama University, Japan
Machine Learning and Deep Learning for Spectrum Sensing in Cognitive Radio



Coffee & Networking (16:05 – 16:25)

- 16:25 – 16:45 **Abd Krim Seghouane**, The University of Melbourne, Australia
Robust Deep Learning
- 16:45 – 17:05 **Wenjing Liao**, Georgia Institute of Technology, Atlanta, GA
Exploiting Low-Dimensional Data Structures and Understanding Neural Scaling Laws of Transformers
- 17:05 – 17:25 **James Pope**, University of Bristol, United Kingdom
Learning Representations for Healthcare and Cybersecurity AI
- 17:25 – 17:45 **Venu Govindaraju**, University at Buffalo, SUNY, Buffalo, NY
From Mailboxes to Minds: How Handwriting Shaped AI and Why It Still Shapes Us
- 17:45 – 18:05 **Nathanael L Baisa**, De Montfort University, United Kingdom
Towards End-to-End Multi-Object Visual Tracking: Opportunities and Challenges



Networking & Posters (18:05)

Oral Presentations

- Poster-1 **Weian Wang**, University College London, United Kingdom
Static object recognition and localization using CSI from low-cost commodity WiFi device
- Poster-2 **Aseman Erfani Jazi**, Arizona State University, Tempe, AZ
Cognitive Digital Twins: A Knowledge-Driven AI Framework for Intelligent Manufacturing
- Poster-3 **Kartikkeya Singh**, University at Buffalo, Buffalo, NY
Context-Aware Terrain Understanding and Uncertainty-Aware Planning for Robust Legged Robot Navigation
- Poster-4 **Darya Ramezani**, Drexel University, Philadelphia, PA
AI Ouch Moments
- Poster-5 **Liliana Hotsko**, University of Waterloo, Canada
Repository-Aware LLMs: Efficient Adaptation and the Future of Programming
- Poster-6 **Doaa Hassan Salem**, University College London, Egypt
Identifying Key Biomarker Genes for Detecting Diabetic Macular Edema using Machine Learning
- Poster-7 **Eunhye Choi**, St. John's University, Jamaica, NY
Higher Education Conference to Explore Humanistic Pathways in the Era of AI: Experience and Impact

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Track 1: Foundations and Frontiers of Model Engineering

08:00 – 08:20 Introduction

Oral Presentations

Chair: Xia Ning, The Ohio State University, Columbus, OH

08:20 – 08:40 **Yujun Yan**, Dartmouth College, Hanover, NH
Structure as the Bridge: From Brains to LLMs

08:40 – 09:00 **Zhipeng Huang**, Suffolk University, Boston, MA
Modeling Continuous-time Interval Graphs using Marked Hawkes Process Network Models

09:00 – 09:20 **Xia Ning**, The Ohio State University, Columbus, OH
Generative and agentic AI for drug discovery

09:20 – 09:40 **Aditi Gautam**, Nvidia, Seattle, WA
More Than Words: Foundation Models Meet Time Series

09:40 – 10:00 **Weimin Zhou**, University of Arizona, Tucson, AZ
AI for Task-Based Image Quality Assessment and Optimization

10:00 – 10:20 **Lee Wooldridge**, Tensor Innovation Partners, LLC, Longwood, FL
RDASai: An AI Driven Instructional Design Framework for perpetual automated hyper integrated systems end-to-end Lifecycles

10:20 – 10:40 **Cédric Heuchenne**, UCLouvain/University of Liège, Belgium
Enhanced data fusion and anonymization for administrative and survey data



Coffee & Networking (10:40 – 11:00)

Track 2: Language, Reasoning and Autonomous Software

Oral Presentations

Chair: Garima Agrawal, Cognizant Technology Solutions, Phoenix Metropolitan Area, AZ
Arpan Kusari, University of Michigan, Ann Arbor, MI

11:00 – 11:20 **Garima Agrawal**, Cognizant Technology Solutions, Phoenix Metropolitan Area, AZ
From Foundation Models to Reasoning Systems: Why Structured Knowledge Is the Missing Layer in AI

11:20 – 11:40 **Kazuo Yano**, Hitachi, Ltd & Happiness Planet, Ltd, Japan
Algebraic Quantum Intelligence: A New Framework for Reproducible Machine Creativity

11:40 – 12:00 **Jean-Charles Lamirel**, LORIA-University of Strasbourg, France
Continual Unsupervised Adaptation for NLP: A Survey/Position on an Underexplored Gap

12:00 – 12:20 **Amita Misra**, Amazon, Sunnyvale, CA
Graph-Grounded Retrieval: From Entity Linking to Answer Generation

12:20 – 12:40 **Rajat Arora**, LinkedIn, Sunnyvale, CA
LLMs for Production Search and Recommendation Systems



Lunch (12:40 – 13:40)

- 13:40 – 14:00 **Pengyu Nie**, *University of Waterloo, Canada*
Rethinking Code Intelligence: Engineering Software with AI and Building AI as Software
- 14:00 – 14:20 **Jeanne Ruane**, *University of Pennsylvania, Philadelphia, PA*
TBA
- 14:20 – 14:40 **Swamy Narayanaswamy**, *TriggerWare.ai, Los Angeles, CA*
How to enable AI Builders to Leverage Live Data in their Agents
- 14:40 – 15:00 **J Smart**, *Georgetown University, Washington, D.C.*
Billions and Billions: A Framework for Global Agentic
- 15:00 – 15:20 **Arpan Kusari**, *University of Michigan, Ann Arbor, MI*
Out of distribution detection in Deep Neural Networks
- 15:20 – 15:40 **Liang Zhao**, *Emory University, Atlanta, GA*
Beyond Textual Agents: Structure-Grounded Reasoning, Feedback, and Steering for Complex Systems
- 15:40 – 16:00 **Shivonne Londt**, *AWS, Wellington, NZ*
TBA
- 16:00 – 16:20 **Yuchen Yang**, *The Pennsylvania State University, University Park, PA*
Trustworthy Acceleration for Large Language Model Inference



Coffee & Networking (16:20 – 16:40)

- 16:40 – 17:00 **Michael J.J. Tiffany**, *Fulcrum Dynamics, Dover, NH*
Agent Societies Without an Orchestrator: Shared State for Multi-Agent Coordination
- 17:20 – 17:40 **Sreevidya Khatravath**, *Jp morgan chase, San Jose, CA*
Temporal Graph Neural Networks for Explainable Stock Market Prediction
- 17:40 – 18:00 **Fnu Suya**, *University of Tennessee, Knoxville, TN*
HAMLOCK: Understanding Hardware-Model Vulnerabilities
- 18:00 – 18:20 **Hongkang Li**, *University of Pennsylvania, Philadelphia, PA*
Towards a Mathematical Theory of Foundation Models
- 18:20 – 18:40 **Firas Khatib**, *University of Massachusetts, Dartmouth, Dartmouth, MA*
Foldit 2.0: An Open, AI-Native Environment for Interactive Biomolecular Design

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Track 3: Security, Assurance and Human Oversight

Oral Presentations

Chair: **Matthew Wright**, Rochester Institute of Technology, Rochester, NY

08:00 – 08:20 **Yaoqing Yang**, Dartmouth College, Hanover, NH
Layer-Balanced Optimization, Heavy-Tail Weight Analysis, and Beyond

08:20 – 08:40 **Matthew Wright**, Rochester Institute of Technology, Rochester, NY
Towards an All-in-One Media Forensics Tool

09:00 – 09:20 **Huixin Zhan**, New Mexico Institute of Mining and Technology, Socorro, NM
SafeGene: Evaluating Adversarial Vulnerabilities and Safety Risks in Genomic Foundation Models

09:20 – 09:40 **J P Jauffret**, George Mason University, Fairfax, VA
TBA

09:40 – 10:00 **Jiwei Guan**, Macquarie University, Australia
Towards Adversarial Robust Learning On Multimodal Neural Networks

10:00 – 10:20 **Pavan Kumar**, J P Morgan Chase, Plano, TX
TBA



Coffee & Networking (10:20 – 10:40)

10:40 – 11:00 **Lili Brush**, Horizon3.ai, Beacon, NY
Offense-Informed Defense: Autonomous Security with AI Agents

11:00 – 11:20 **Zhiyuan Yu**, Texas A&M University, College Station, TX
Understanding to Defend: Interpretability for Trustworthy Decision-Making

11:20 – 11:40 **Sarah Hykin**, Universal Emergence Foundation, Ossining, NY
Beyond Prompt Engineering: Reducing the Incoherence Tax in Human-AI Collaboration

11:40 – 12:00 **Mengfan Xu**, UMass Amherst, Amherst, MA
Collective Intelligent Decision-Making Under Uncertainty via Multi-Agent Learning

12:00 – 12:20 **Simon Reay Atkinson**, University of Sydney FASS | USBS | RAN (Res), Australia
AI and the vitality of unlearning to lifing

12:20 – 12:40 **Marouane Rouicheq**, NativUC, Australia
A Dialectical Turn in AI: The Crisis of Monological Intelligence and the Twilight of the AI Age

12:40 – 13:00 **Gerhard Wunder**, FU Berlin, Germany
From Advanced Attribution to Causality in Current AI Explainability Frameworks



Lunch (13:00 – 13:40)

Track 4: Deployed Intelligence: Discovery Platforms and Physical Systems

Oral Presentations

Chair: **Babak Esmaeli-Azad**, CellCureRx, inc., San Diego, CA

13:40 – 14:00 **Licheng Liu**, University of Wisconsin-Madison, Madison, WI
Hybrid AI for Natural and Agricultural Ecosystem Modeling

- 14:00 – 14:20 **Babak Esmaeli-Azad**, *CellCureRx, inc., San Diego, CA*
Reversing the Epigenetic Aging Clock through AI-Enabled CiPSC™ Drug Discovery: Closing the Loop Between Computational Prediction and Human Biology
- 14:20 – 14:40 **Antoine Belley**, *Massachusetts Institute of Technology, Cambridge, MA*
Building a foundation model of the atomic nucleus
- 14:40 – 15:00 **Zachary Plotkin**, *Lumos Health PBC, Princeton, NJ*
The Case for Physiological Foundation Models!
- 15:00 – 15:20 **Thomas Caulfield**, *Digital Ether Computing, Jacksonville, FL*
Verified Minds
- 15:20 – 15:40 **Naeyma Islam**, *Digital Ether Computing, Jacksonville, FL*
Learning Drug-Likeness from Heterogeneous Inputs: A Multi-Modal AI Model for ADMET Prediction



Coffee & Networking (15:40 – 16:00)

- 16:00 – 16:20 **Manu Madhok**, *Children's Minnesota, Edina, MN*
Pathway to Equity and Inclusive Care: An AI-supported Escape Room Experience to Reduce Disparities in Healthcare
- 16:20 – 16:40 **John Templeton**, *University of South Florida, Tampa, FL*
TBA
- 16:40 – 17:00 **Bingcheng Li**, *Lockheed Martin, Owego, NY*
Reinforcement Learning and Polynomial Chirplet Based Time Frequency Analysis for Time Series Data
- 17:00 – 17:20 Departures**

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18:00 – 18:10 Virtual Introductions

KEYNOTE & PLENARY TALKS

Chair: Gunjan Vasant Ramteke, AWS, San Francisco, CA**Stephen Grossberg**

Boston University, Boston, MA

18:10 – 18:55

Talk Title: Explainable and Reliable AI: Comparing Deep Learning with Adaptive Resonance

Biography: Dr. Stephen Grossberg is a world-renowned pioneer in artificial intelligence, neural networks, cognitive science, and computational neuroscience. His groundbreaking contributions have shaped the theoretical foundations of machine learning, adaptive systems, and intelligent behavior. Over several decades, he has developed influential models explaining learning, perception, attention, memory, and decision-making in both biological and artificial systems.

As the founder of Adaptive Resonance Theory (ART), Dr. Grossberg introduced fundamental principles that continue to influence modern AI, neural network architectures, and pattern recognition technologies. His interdisciplinary research has bridged neuroscience, mathematics, psychology, and artificial intelligence, inspiring generations of researchers and advancing our understanding of intelligent systems.

Dr. Grossberg's pioneering work remains highly relevant to contemporary developments in AI, including deep learning, autonomous systems, and the pursuit of more adaptive and trustworthy intelligent technologies.

Session Type: Plenary

Focus Area: Artificial Neural Networks, Cognitive Intelligence, Adaptive Resonance Theory (ART), Machine Learning Foundations, Computational Neuroscience

Oral Presentations

- 18:55 – 19:15 **Ankit Raheja & Varun Joshi**, Walmart, San Jose, CA
Predicting Conversion Probability with Monotonic Constraints and Category-Aware Mixture-of-Experts
- 19:15 – 19:35 **Dhabaleswar Panda**, The Ohio State University, Columbus, OH
Tools and Services for Next-generation AI Applications using Computing Continuum
- 19:35 – 19:55 **Sohil Sri Mani Yeshwanth Grandhi**, Pennsylvania State University, University Park, PA
The Role of Compiler Optimization in the Era of Large-Scale AI Infrastructure
- 19:55 – 20:15 **Kevin Patel**, Futaba North America Engineering & Marketing Corp., Bloomington, IL
Agentic AI for Design-for Manufacturing: Robotic Intelligence and 3D Simulation for Autonomous Production Development
- 20:15 – 20:35 **Kiran Sai Varma Batta**, Ciphernine Inc, Cincinnati, OH
Implementing cloud Native ELT Architecture - A comprehensive study on Governance, Risk and Compliance Data migration using the Hybrid Pipeline Framework
- 20:35 – 20:55 **Gunjan Vasant Ramteke**, AWS, San Francisco, CA
Agentic AI Frameworks for Drug Discovery and Precision Oncology
- 20:55 – 21:15 **Li-Pang Chen**, National Chengchi University, Taiwan
Predictor-Assistant Nonparametric Graphical Models with Multivariate Error-Prone Data
- 21:15 – 21:35 **Dai Xiaoyan**, KYOCERA Corporation, Japan
Enhancing Visual Reasoning via Structure-Aware Learning in Vision Language Models

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KEYNOTE TALKS

Chair: Paula Mercurio, Hamline University, St Paul, MN



Jay Lee

University of Maryland, College Park, MD

07:30 – 08:00

Talk Title: Trends and Recent Advances of Industrial Physical AI

Biography: Dr. Jay Lee is a globally recognized pioneer in Industrial Artificial Intelligence, smart manufacturing, and predictive analytics. As the Clark Distinguished Chair Professor and Director of the Industrial AI Center at the University of Maryland, he leads cutting-edge research focused on transforming industries through intelligent systems, data-driven decision-making, and advanced automation technologies.

Widely known for his contributions to Industry 4.0 and AI-enabled manufacturing, Dr. Lee has developed innovative frameworks that integrate machine learning, digital twins, prognostics, and predictive maintenance to enhance operational efficiency and sustainability. His research has helped organizations leverage AI to improve productivity, optimize assets, and accelerate digital transformation across industrial sectors.

Through extensive collaborations with academia, industry, and government organizations worldwide, Dr. Lee continues to advance the adoption of Industrial AI and smart systems. His work is shaping the future of manufacturing, intelligent infrastructure, and next-generation industrial innovation.

Session Type: Keynote Speaker

Focus Area: Industrial AI, Smart Manufacturing, Industry 4.0, Predictive Analytics, Digital Twins, Intelligent Systems



Bjorn Schuller

Technical University of Munich, Germany

08:00 – 08:30

Talk Title: From Gradient Descent to Emotional Ascent: The Rise of Affective Machines

Biography: Dr. Björn Schuller is a leading pioneer in artificial intelligence, affective computing, and health informatics. His groundbreaking research combines computer science with modern health care and medicine, focusing on the acquisition, analysis, and interpretation of biosignals — including speech, acoustic, and visual data — for prevention, diagnosis, and decision support through trustworthy AI methods. He is

Full Professor of Health Informatics at the Technical University of Munich, where he earned his diploma, doctoral degree, and habilitation, and has concurrently served as Professor of Artificial Intelligence at Imperial College London since 2013, heading GLAM, the Group on Language, Audio & Music. His prior academic posts include full professorships at the University of Augsburg and the University of Passau. He is also co-founding CEO and current CSO of audEERING. Dr. Schuller is a Fellow of the IEEE and ISCA, a Golden Core Awardee of the IEEE Computer Society, President-Emeritus of the AAAC, and a Senior Member of the ACM, with his work cited over 65,000 times. His pioneering contributions in speech emotion recognition and computer audition continue to shape trustworthy, human-centered applications of AI in health and wellbeing.

Session Type: Keynote Speaker

Focus Area: Artificial Intelligence, Health Informatics, Affective Computing, Computer Audition, Digital Health

Oral Presentations

- 08:30 – 08:50 **Jianbing Ni**, *Queen's University, Canada*
Provenance in AI-Generated Content: Establishing Origin, Lineage, and Ownership
- 08:50 – 09:10 **Bill Kapralos**, *Ontario Tech University, Canada*
Artificial Intelligence-Enabled Immersive Virtual Learning Environments for Precision Medical Education
- 09:10 – 09:30 **Shivani Mall**, *University of Oxford, United Kingdom*
Efficiency in Large-Scale Multimodal Learning
- 09:30 – 09:50 **Ewelina Kurtys**, *FinalSpark, United Kingdom*
Living computers
- 09:50 – 10:10 **Ming Wang**, *Lancaster University, United Kingdom*
From sEMG Signals to Human Understanding: Multimodal Foundation Models for Intelligent Perception
- 10:10 – 10:30 **Annalisa Bracco**, *CMCC (EuroMediterranean Center on Climate Change), Italy*
A dynamical-aware AI architecture for seasonal prediction
- 10:30 – 10:50 **Kunyu Peng**, *Karlsruhe Institute of Technology, IAR, Germany*
Trustworthy Cooperative Embodied Intelligence for Human Centered Environment
- 10:50 – 11:10 **Florentin Koch**, *Ecole Polytechnique, France*
Evaluating Artificial Creativity Without Ontological Presuppositions: A Framework for Generative AI Systems
- 11:10 – 11:30 **Julia Wolleb**, *University of Zurich, Switzerland*
Towards Generalizable Neural Representations for Medical Images and Videos
- 11:30 – 11:50 **Andres Bell-Navas**, *Universidad Politécnica de Madrid, Spain*
Heart Disease Diagnosis and Prognosis in Echocardiography Databases with Modal Decomposition and Masked Autoencoders
- 11:50 – 12:10 **Shaojie Jiang**, *AI Colleagues, University of Amsterdam, Netherlands*
Orcheo: An Open-source Agent Orchestration Platform for Vibe-coders
-  **Lunch (12:10 – 12:30)**
- 12:30 – 12:50 **Xiaomin Li**, *Microsoft, Cambridge, MA*
Semantic Volume: Quantifying and Detecting both External and Internal Uncertainty in LLM
- 12:50 – 13:10 **MaryLena Bleile**, *Independent, New York, NY*
Reducing POMDPs via Relative Ignorability
- 13:10 – 13:30 **Prateek Biswas**, *IBM, Astoria, NY*
Code-Guided Reasoning for Small Language Models
- 13:30 – 13:50 **Gregory Patrick Garvey**, *Quinnipiac University, Hamden, CT*
TBA
- 13:50 – 14:10 **Avik Datta**, *Northwestern University, Evanston, IL*
Modernizing Legacy Enterprise Data Platforms: From Traditional ETL to Cloud Lakehouse Architectures
- 14:10 – 14:30 **Paula Mercurio**, *Hamline University, St Paul, MN*
Multigrid training for molecular generation using graph neural networks (GNNs)
- 14:30 – 14:50 **Srikanth Vemula**, *College of Saint Benedict & St John's University, Collegeville, MN*
TBA
- 14:50 – 15:10 **Haw-Shiuan Chang**, *University of Arizona, Tucson, AZ*
Toward Fundamentally Trustworthy LLMs via Ultra-Fine-Grained Text Categorization

- 15:10 – 15:30 **VenkateswaraReddy Gudise**, *KPMG US, Melissa, TX*
From Reactive Pipelines to Self-Healing Data Platforms: An Agentic AI Framework for Reliable, Secure, and Cost-Efficient Azure Data Engineering
- 15:30 – 15:50 **Parham Kebria**, *North Carolina A&T State University, Greensboro, NC*
Embodied Intelligence in Healthcare: AI, Robotics, and the Next Era of Medical Autonomy
- 15:50 – 16:10 **Arnaud Mayeux**, *University of Wisconsin–Madison, Madison, WI*
Machines Generating and Learning Compilable and Formally Verified Mathematical Knowledge



See you at Nxt AI-2026

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