SEAI 2025

Fuzhou, China | June 20-22, 2025

2025 年 IEEE 第 5 届软件工程与人工智能国际会议

2025 IEEE the 5th International Conference on Software Engineering and Artificial Intelligence

Fuzhou, China	中国福州	June 20-22, 2025

Co-sponsored by

IEEE 福州大学 FUZHOU UNIVERSITY

Hosted by

福州大学 计算机与大数据学院/软件学院 FUZHOU UNIVERSITY College of Computer and Data Science/College of Software

华侨大学 HUAQIAO UNIVERSITY 计算机科学与技术学院 COLLEGE OF COMPUTER SCIENCE AND TECHNOLOGY

福建省计算机学会 www.cfcs.com.cn

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福建农林大学 FUJIAN AGRICULTURE AND FORESTRY UNIVERSITY 计算机与信息学院 College Of Computer And Information Sciences

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GENERAL INFORMATION

Onsite Conference Venue

福州中海凯骊酒店 (The COLI Hotel Fuzhou)
地址: 福建，闽侯，高新大道 1-1 号中海寰宇天下 56 号楼距离厚庭地铁站-B ロ 1.22km
Address: 9 Jiahu East Road, Jiangning District, Nanjing, China
Tel.: + 86-25-81038888; +86-15951750314
Email: yeqing1974@163.com

客房预订联系
黄经理: 13799990952

Onsite Registration

Go to the registration desk→ Inform the staff of your paper ID→ Sign-in→ Claim your conference kit.

Devices Provided by the Organizer

Laptops (with MS-Office & Adobe Reader) / Projectors & Screen / Laser Sticks

Materials Provided by the Presenter

Oral Session: Slides (pptx or pdf version). Format 16:9 is preferred.

Poster session: A1 (Length: 841mm, width:594mm) size poster.

Official language: English.

Duration of Each Presentation

Keynote Speech: 45min, including 5 min Q&A.
Invited Speech: 20min, including 3 min Q&A.
Oral Session: 15min, including 3 min Q&A.

Notice

※ Please wear your delegate badge (name tag) for all the conference activities. Lending your participant card to others is not allowed.

※ Please take good care of your valuables at any time during the conference. The conference organizer does not assume any responsibility for the loss of personal belongings of the participants during conference day.

※ **UTC+8. Time in Beijing. Please be aware of time difference between this and your region/country.**

Online Presentation Tips

zoom
Zoom Download
Zoom Background
Conference Banner

Room	Meeting ID	Link
A	**892 7002 7512**	https://us02web.zoom.us/j/89270027512
B	**898 0474 5422**	https://us02web.zoom.us/j/89804745422

Contact

SEAI 2025
Ms. Ching Cao
Email: seai_conf@163.com
Phone: +86-13290000003 or +28 83207566

WELCOME MESSAGE

We are pleased to welcome you to attend 2025 IEEE the 5th International Conference on Software Engineering and Artificial Intelligence (SEAI 2025), which will be held in Fuzhou, China (中国 福州) during June 20-22, 2025. Co-sponsored by IEEE and Fuzhou University, hosted by the College of Computer and Data Science/College of Software (Fuzhou University), College of Computer Science and Technology (Huaqiao University) and Fujian Computer Society, co-hosted by College of Computer and Information Science (Fujian Agriculture and Forestry University, China).

This event will provide a unique opportunity for international scholars, researchers and practitioners working in a wide variety of scientific areas with a common interest in Software Engineering and Artificial Intelligence.

The year's Fuzhou conference will include discussions on topics such as Software Design and Information Management, Software Design and Information Management, Computer Vision and Image Processing Methods, Next Generation Artificial Intelligence Theory and Application, Application of AI in Information Technology, Design and Management of Modern Integrated Information Systems based on Data-driven. The conference will be composed of 4 onsite sessions and 2 online sessions. In addition, 3 keynote speeches will be delivered by *Prof. Yiu-Ming Cheung* (Fellow, IEEE, Hong Kong Baptist University, Hong Kong, China), *Prof. Ling Wang* (Tsinghua University, China), *Prof. Liang Xiao* (Xiamen University). 2 invited talks are given by Prof. Zhaoxia Guo, Sichuan University, China and Dr. Nikhil Patel, Deloitte Consulting LLP, USA.

We would like to deeply express our heartfelt appreciation to our keynote speakers, session chairs, international reviewers, delegates, as well as all the committee members involved in the technical evaluation of conference papers and in the conference organization for your time, effort, and great contributions. Apart from that, we'd like to extend our thanks to all the authors and external reviewers for your contribution. It is your high competence, enthusiasm, valuable time and expertise that have enabled us to prepare the final program with high quality and make the conference a great success.
I wish to thank all attendees for participating in the conference and hope you have a fruitful and memorable experience at SEAI 2025!
Finally, we wish you a very successful conference! Hope you will enjoy your stay in Fuzhou!

With Warmest Regards,

Conference Organizing Committee

Fuzhou, June 2025

SEAI 2025

CONFERENCE COMMITTEE 2025

Organizing Committee

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Jin Gou, Huaqiao University, China

Conference General Co-Chairs/大会联合主席

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Ameur Bensefia, Higher Colleges of Technology, UAE

AGENDA OVERVIEW

June 20 | Friday (UTC+8)		
13:00-17:00	**Onsite Registration**	**The COLI Hotel Fuzhou | Lobby (1F)** **福州中海凯骊酒店 | 一楼大厅**
14:00-16:30	**Online Pre-test Session**	zoom

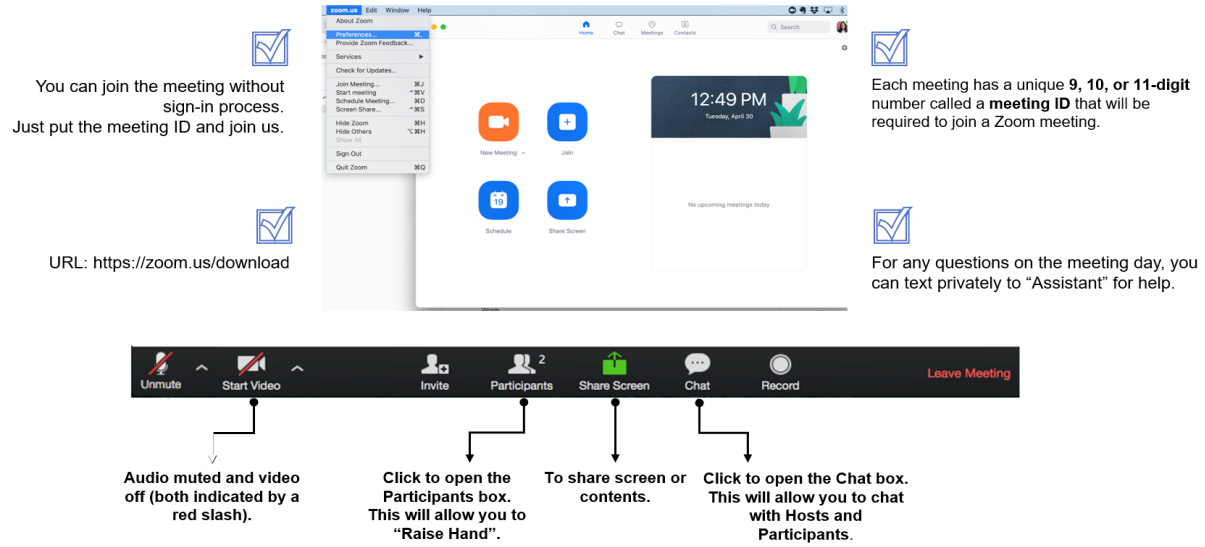
Zoom Test Timetable

Meeting Room A: 892 7002 7512	
14:00-15:00	S066 S128 S003 S007 S045 S078 S110 S116 S012 S102 S067 S100 S002
15:00-16:00	S018 S707 S123 S114 S024 S053 S058 S069 S091 S099 S107 S704
16:00-16:30	Alternative time for participants who are unavailable at allocated time. Other online participants, includes but not limited to keynote speaker, invited speaker, session chair, committee member, delegate.

Participants who are going to make online presentation are required to join the rehearsal in Zoom on Friday, June 20, 2025.
Duration: 3min apiece. Feel free to leave after you finish the test.
We will test control panel including screen sharing, audio, video and "Raise Hand" feature, etc. Please get your presentation slides and computer equipment prepared beforehand.
线上报告的参会人员需参加 6 月 20 日的 Zoom 测试以确保会议报告有序进行。每人大约需要 2~3 分钟，完成即可离线。

You are required to set your display name before joining the online meeting. 请在申请加入会议室前按照如下设置您的名称。
Author/Presenter: Paper ID-Name < S001_Li Lei > Delegate: Delegate-Name < Delegate_Li Lei >

Zoom Guidance



AGENDA OVERVIEW

June 21 | Saturday (UTC+8)

Keynote Session (Onsite & Online)

<中海宴会厅 3 厅| 三楼>
<Banquet Hall III | 3F>

ZOOM Room A: 892 7002 7512

Chairman: Prof. Xing Chen, Fuzhou University, China

9:00-9:10	**Opening Remarks** **Prof. Jin Gou, Huaqiao University, China**
	Chairman: Prof. Shiping Wang, Fuzhou University, China
9:10-9:55	**Keynote Speech I:** Deep Long-tailed Data Learning towards Visual Recognition **Prof. Yiu-Ming Cheung** (Fellow of IEEE), *Hong Kong Baptist University, Hong Kong, China*
9:55-10:40	**Keynote Speech II:** Research Development of Optimization Scheduling for Smart Manufacturing and Service **Prof. Ling Wang,** *Tsinghua University, China*
10:40-11:15	Group Photo & Morning Coffee Break
11:15-12:00	**Keynote Speech III:** Environment-Aware Collaborative Vehicular Perception Against Jamming and Interference **Prof. Liang Xiao** (Fellow of IEEE), *Xiamen University, China*
12:00-13:30	Lunch Time <骊轩西餐厅 | LIXUAN>

Time	Venue	Onsite Parallel Sessions
13:30-15:30	<多功能厅 5 | 三楼> <Function Room V | 3F>	**Onsite Session 1:** Software Design and Information Management *Chairperson:* S1003 S027 S010 S052 S113 S005 S108 S051
	<董事会议室 | 三楼> <VIP Room | 3F>	**Onsite Session 2:** Advanced Electronic Information Systems and Signal Analysis *Chairperson: Dr. Ming Yu, Beijing Forestry University, China* S063 S015 S070 S017 S029 S061 S702 S126
15:30-16:00	Afternoon Coffee Break	
16:00-17:30	<多功能厅 5 | 三楼> <Function Room V | 3F>	**Onsite Session 3:** Computer Vision and Image Processing Methods *Chairperson:* S090 S028 S087 S103 S062 S048
	<董事会议室 | 三楼> <VIP Room | 3F>	**Onsite Session 4:** Next Generation Artificial Intelligence Theory and Application *Chairperson: Prof. Xiaowen Zhang, The City University of New York, USA* S701 S016 S057 S125 S501 S009
17:30-19:30	Dinner Time <骊轩西餐厅 | LIXUAN>	

June 22 | Sunday (UTC+8)		
Time	**ZOOM Meeting Room**	**Online Parallel Sessions**
09:00-12:35	Meeting Room A ZOOM ID: 892 7002 7512	**Online Session 1:** Application of AI in Information Technology *Chairperson:* Invited Talk- Prof. Zhaoxia Guo S066 S128 S003 S007 S045 S078 S110 S116 S012 S102 S067 S100 S002
	Meeting Room B ZOOM ID: 898 0474 5422	**Online Session 2:** Design and Management of Modern Integrated Information Systems based on Data-driven *Chairperson: Dr. Yan Zhang, Tsinghua University, China* Invited Talk- Dr. Nikhil Patel S018 S707 S123 S114 S024 S053 S058 S069 S091 S099 S107 S704

Note

*Zoom Meeting online conference room will be open 30 mins before scheduled time. Please enter your room 10-15 minutes early.
*All online attendees are required to join the pre-test on Friday, June 20 Start from 14:00 (UTC+8).
*A paper not presented or presented by a non-author without prior written approval by the Conference TPC will be removed from the final conference proceedings.

INTRODUCTION OF KEYNOTE SPEAKERS (UTC+8)

09:10-09:55
June 21 (Saturday), 2025

<中海宴会厅 3 厅| 三楼 | Banquet Hall III | 3F >
ZOOM Room A: 892 7002 7512

Prof. Yiu-Ming Cheung
Fellow of IEEE

Hong Kong Baptist University, Hong Kong, China

Yiu-ming Cheung is currently a Chair Professor (Artificial Intelligence) of the Department of Computer Science, Dean of Institute for Research and Continuing Education (IRACE), and Associate Director of Institute of Computational and Theoretical Studies in Hong Kong Baptist University (HKBU). He received PhD degree from Department of Computer Science and Engineering at The Chinese University of Hong Kong in 2000, and then joined the Department of Computer Science at HKBU in 2001. He is an IEEE Fellow, AAAS Fellow, IET Fellow, AAIA Fellow, and British Computer Society (BCS) Fellow. He is the Awardee of RGC Senior Research Fellow with receiving a fellowship grant of HK$7.8 million over a period of 60 months. Since 2019, he has been ranked the World's Top 1% Most-cited Scientists in the field of Artificial Intelligence and Image Processing by Stanford University for six consecutive years. He was elected as a Distinguished Lecturer of IEEE Computational Intelligence Society in 2020, and named a Chair Professor of Changjiang Scholars Program by the Ministry of Education of the People's Republic of China for the dedication and exceptional achievements in his academic career. Also, he is the Editor-in-Chief of IEEE Transactions on Emerging Topics in Computational Intelligence.

His research interests include machine learning and visual computing, as well as their applications in data science, pattern recognition, multi-objective optimization, and information security. He has published over 300 articles in the high-quality conferences and journals, including TPAMI, TNNLS, TIFS, TIP, TMM, TKDE, TCYB, CVPR, IJCAI, AAAI, and so on. His four co-authored papers have been selected as ESI Highly Cited Papers (i.e. listed in Top 1% globally in the corresponding discipline). Moreover, he has been granted one Chinese patent and two US patents. Subsequently, the underlying technique of his eye-gaze tracking patent has been successfully applied to develop the first mobile app for fatigue driving detection. It turns out that, selected from 1000 new inventions and products of 700+ competition teams from 40 countries, he was awarded two most prestigious prizes: (1) the Gold Medal with Distinction (i.e. the highest grade in Gold Medals) and (2) Swiss Automobile Club Prize, in the 45th International Exhibition of Invention, Geneva, Switzerland, on March 29-April 2, 2017, in recognition of his innovative work. Also, he was the Gold Award Winner of Hong Kong Innovative Invention Award in the Seventh Hong Kong Innovative Technologies Achievement Award 2017. In addition, he won the Gold Medal with Congratulations of Jury (i.e. the highest grade in Gold Medals) and the Award of Excellence from Romania, respectively, at the 46th International Exhibition of Inventions of Geneva 2018 with his invention "Lip-password: Double Security System for Identity Authentication". He was the recipient of: (1) 2023-2024 President's Award for Outstanding Performance in Scholarly Work at HKBU, (2) HKBU Innovation Award 2024, (3) 2023 APNNS Outstanding Achievement Award, (4) Best Research Award of Department of Computer Science at HKBU in 2011 and 2021, respectively, (5) 2022-23 Faculty Research Excellence Paper Award in HKBU, (6) Best in Theoretical Paper Award in WI-IAT'2020, (7) Best Student Paper Award in ISMIS'2018, and (8) Best Paper Awards in DOCS'2024, SEAL'2017, ISICA'2017, ICNC- FSKD'2014, and IEEE IWDVT'2005.

He is the Founding Chairman of IEEE (Hong Kong) Computational Intelligence Chapter and the Chair of Technical Community on Intelligent Informatics (TCII) of IEEE Computer Society. He has served in various capacities (e.g., Organizing Committee Chair, Program Committee Chair, Program Committee Area Chair, and Financial Chair) at several top-tier international conferences, including IJCAI'2021, ICPR'2020, ICDM'2017 & 2018, WCCI'2016, WI-IAT'2012,

ICDM'2006 & WI-IAT'2006, to name a few. He is an Associate Editor of several prestigious journals, including IEEE Transactions on Cybernetics, IEEE Transactions on Emerging Topics in Computational Intelligence, IEEE Transactions on Cognitive and Developmental Systems, IEEE Transactions on Neural Networks and Learning Systems (2014-2020), Pattern Recognition, Pattern Recognition Letters, Knowledge and Information Systems (KAIS), and Neurocomputing, as well as the Guest Editor in several international journals. Currently, he is an Engineering Panel member of Research Grants Council, Hong Kong, a member of assessment panel of Enterprise Support Scheme (ESS) under the Innovation and Technology Fund (ITF), and a Fellow Evaluation Committee member of IEEE Computational Intelligence Society and IEEE Computer Society, respectively.

TALK

Deep Long-tailed Data Learning towards Visual Recognition

Abstract: Although deep learning has made great progress, a good model often requires a large amount of artificially balanced and annotated data. Unfortunately, real-world data are often unbalanced, typically exhibiting a long-tailed distribution, which refers to a small number of classes with abundant training samples but the remaining large number of classes only with very few training instances. Under the circumstances, the performance of deep learning models trained on long-tailed data declines sharply in the tail classes. However, tail classes cannot be ignored in various situations such as rare disease diagnosis, and anomaly detection. Subsequently, long-tailed data is still very challenging to deep learning. In this talk, the impact of long-tailed data on deep learning models will be first introduced. Then, the research progress in this area will be reviewed, including some representative methods in the literature. Lastly, the potential research directions in this field will be discussed.

INTRODUCTION OF KEYNOTE SPEAKERS (UTC+8)

09:55-10:40
June 21 (Saturday), 2025

<中海宴会厅 3 厅| 三楼 | Banquet Hall III | 3F >
ZOOM Room A: 892 7002 7512

Prof. Ling Wang

Tsinghua University, China

Ling Wang received both B.Sc. and Ph.D. degrees from Tsinghua University in 1995 and 1999, and now is a tenured Full Professor with Tsinghua Univ. His research interests mainly include artificial intelligence and scheduling optimization. He has authored 5 academic books and 400+ SCI-indexed papers. His publications have attracted over 40K Google Scholar Citations. He is the Editor-in-Chief of Swarm and Evolutionary Computation, International J of Automation and Control, Complex System Modeling and Simulation, the Senior Editor of Expert Systems with Applications, and the Associate Editor of IEEE Trans on Evolutionary Computation, and the Editorial Board Member of Memetic Computing, Control Theory & Applications, Control and Decision, CIMS, System Engineering and Electronics, etc. Prof. Wang received National Natural Science Award of China (2nd Prize), Natural Science Award of the Ministry of Education (MOE) of China (1st Prize and 2nd Prize), Science and Technology Awards of Beijing City, Yunnan Province, Hunan Province and Hubei Province, Technology Innovation Award (1st Prize) and Natural Science Award (1st Prize) of China Simulation Federation. He also received INFORMS Franz Edelman Finalist Award, and the Best Paper Awards of many journals and conferences. He was the recipient of National Natural Science Fund for Distinguished Young Scholars of China (2015), Young Talent of Science and Technology of Beijing City, New Century Excellent Talent in University by the MOE, Academic Talent of Tsinghua University, Young Scientist Award of CAA, and Clarivate-Highly Cited Researcher.

TALK

Research Development of Optimization Scheduling for Smart Manufacturing and Service

Abstract: In this talk I will first introduce the background and significance of the research about optimization scheduling for manufacturing and service systems, and then explain the classification and challenges on the research about optimization. Finally I will point out the important issues and development directions about optimization and scheduling based on several application fields and scenarios.

INTRODUCTION OF KEYNOTE SPEAKERS (UTC+8)

11:15-12:00
June 21 (Saturday), 2025

<中海宴会厅 3 厅| 三楼 | Banquet Hall III | 3F >
ZOOM Room A: 892 7002 7512

Prof. Liang Xiao
Fellow of IEEE

Xiamen University, China

Liang Xiao is IEEE Fellow and a Professor in the Department of Informatics and Communication Engineering, Xiamen University. She has served in several editorial roles, including an associate editor of IEEE Transactions on Information Forensics & Security, IEEE Transactions on Communication, IEEE Transactions on Wireless Communication and IEEE Transactions on Dependable and Secure Computing, and Guest Editor of IEEE Journal on Selected Topics in Signal Processing. Her research interests include wireless security, privacy protection, and wireless communications. She published three books and three book chapters. She won 2024 IEEE ComSoc Asia-Pacific Outstanding Paper Award, as well as the best paper award for 2017 IEEE ICC, 2018 IEEE ICCS and 2016 IEEE INFOCOM Bigsecurity WS. She was 2022-2023 IEEE ComSoc Distinguished Lecturer.

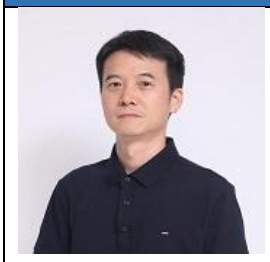
TALK

Environment-Aware Collaborative Vehicular Perception Against Jamming and Interference

Abstract: Collaborative vehicular perception suffers from prolonged perception latency and significant perception errors against jamming and interference. In this report, we discuss reinforcement learning-based collaborative vehicular perception scheme to enhance perception accuracy and speed with incorporating the environmental features such as traffic density and building layouts in the state formulation. The critic region of feature maps, transmit power and channels are chosen to enhance the utility as the weighted sum of perception accuracy, speed, and the minimum latency requirement for data sharing. The upper performance bound of perception accuracy and speed is provided based on the Stackelberg equilibrium of the game between CAVs and the jammer, revealing the impact of maximum jamming power, channel gains, data size and point cloud resolution on the perception performance.

INTRODUCTION OF INVITED SPEAKERS (UTC+8)

9:00-9:20 June 22 (Sunday), 2025	Meeting Room A ZOOM ID: 892 7002 7512



Prof. Zhaoxia Guo

Sichuan University, China

Zhaoxia Guo received his PhD degree from The Hong Kong Polytechnic University in 2008. He is currently a full professor and the head of the Department of Industrial Engineering and Management at Business School of Sichuan University, China. His recent research interests include artificial intelligence and applications, complex systems modelling and management, and data-driven decision-making. He has published a textbook titled as Intelligent Algorithms: Principles and Applications, three monographs that focus on AI applications in operations managements, and over 100 research papers in refereed journals and international conference proceedings, such as One Earth, Nature Communications, INFORMS Journal on Computing, IISE Transactions, Science Bulletin, Scientific Data, International Journal of Geographical Information Science, Transportation Research Part C-E, and IEEE Transactions. He has received numerous awards, including the 4th place in the 2024 "Data Elements ×" National Competition Finals (Urban Governance Track), the 2023 China Annual Best Paper Award from Cell Press, the Second Prize of the Sichuan Provincial Science and Technology Progress Award in 2017, the Gold Award for Best Innovative Application at the 2012 Hong Kong RFID Awards, and the Second Place of the IMB 2009 Technology Innovation Award sponsored by the European Commission. He was selected an academic and technical leader in Sichuan Province, and has held leadership roles (e.g., deputy general conference chair, organizing committee chair, and cluster chair) in multiple international conferences related to artificial intelligence, industrial engineering, and operations research.

Speech Title: Neural combinatorial optimization for practical vehicle routing problems: Advances and challenges

Abstract: Neural combinatorial optimization (NCO) has emerged as a promising paradigm for solving combinatorial optimization problems by leveraging the power of deep learning. Unlike traditional optimization techniques, NCO offers a data-driven, and adaptive approach that learns from problem instances and demonstrates strong generalization capabilities for effectively handling a wide range of problem instances. In recent years, there has been an increasing interest in developing NCO models to tackle routing problems. This talk focuses on the applications of NCO in solving practical vehicle routing problems (VRPs), which are fundamental in logistics and transportation. Several representative NCO models for VRPs will be reviewed firstly. I will then highlight how we developed NCO models to address VRPs with complex real-world constraints, such as time-dependent travel speeds and uncertain parking availability, which are challenging for traditional techniques. The results of performance comparisons between our NCO models and several benchmark models will be presented. Finally, significant challenges in applying NCO to practical VRPs will be discussed.

9:00-9:20 June 22 (Sunday), 2025	Meeting Room B ZOOM ID: 898 0474 5422

Dr. Nikhil Patel

Deloitte Consulting LLP, USA

Speech Title: CVS: A Novel Framework for Personality-based Automatic CV Sorting using Deep Learning

Abstract: Both skill and personality play impactful roles in professional performance. The Human Resource Management (HRM) identiffes and veriffes the skill set and academic background while recruiting new employees. However, analyzing the personalities of the applicants is challenging. Because humans have intrinsic characteristics that allow them to express fabricated personalities in different settings. Nevertheless, people frequently express their true sentiments on social media. This presentation will present an innovative and effective framework, the Curriculum Vitae Sorting (CVS) framework, that uses Bidirectional Long Short-Term Memory (BiLSTM) and the Myers-Briggs Type Indicator (MBTI) dataset to identify the personalities of job applicants using their social media posts. The CVS framework achieves a remarkable 92.88% classiffcation accuracy with a 4.55% False Positive Rate (FPR). The practical application of this framework demonstrates an 11.67% improvement in the Key Performance Indicator (KPI) among newly recruited employees. The 93.11% precision, 92.94% recall, and 94.03% F1-score of the CVS framework demonstrate its outstanding and reliable performance in personality classiffcation. This unique application of Deep Learning (DL) in HRM unearths a new dimension of Artiffcial Intelligence (AI) in business, helping organizations recruit employees with the required personalities and qualities. Index Terms—Personality Classiffcation, CV Sorting, BiLSTM Network, Myers-Briggs Type Indicator, Deep Learning, Neural Network, Natural Language Processing.

ONSITE SESSION 1 (UTC+8)

June 21 (Saturday) 13:30-15:30	<多功能厅 5	三楼> <Function Room V | 3F>

Onsite Session 1: Software Design and Information Management
Chairperson:

13:30-13:45	S1003	Addressing Disparities in Clean Cooking Fuel Adoption through a Fuzzy Rule-Based Classification and Gradient Boosting Approach ***Xiaolong Zhou,*** *China Unicom Research Institute & Beijing University of Posts and Telecommunications, China*
13:45-14:00	S027	QM4ER: Qualitative Prediction Models for Evaluating the Energy Efficiency of Code Refactoring ***CongWei Zhan,*** *Fujian Normal University, China*
14:00-14:15	S010	Knime-Based Correlation Analysis of Computer Science Courses and Graduation Projects in Vocational Education ***Da Huang,*** *Liming Vocational University, China*
14:15-14:30	S052	Intermediate Representation-Based Approach for Code Refactoring and Quality Evaluation ***Mian Lin,*** *Fujian Normal University, China*
14:30-14:45	S113	Exploring the Students' Perception of Use Case Diagram: A Case Study ***Taghreed Bagies,*** *King Abdulaziz University, Saudi Arabia*
14:45-15:00	S005	Network Coverage Optimization Technology Based on Multi-objective Evolutionary Algorithm ***Jiale Zhao,*** *Hainan University, China*
15:00-15:15	S108	Shift Based Penalty Competitive Constrained Multi- Objective Particle Swarm Optimization Algorithm ***Ruichen Chen,*** *Fujian Agriculture and Forestry University, China*
15:15-15:30	S051	A Primarily Research of Software Productivity from a Software Economics Perspective ***Xiaolu Zhu, Yaning Wu, and Xiaochen Lv,*** *North China Institute of Computing Technology, China*

ONSITE SESSION 2 (UTC+8)

June 21 (Saturday) **13:30-15:30**	**<董事会议室| 三楼>** **< VIP Room | 3F>**

Onsite Session 2: Advanced Electronic Information Systems and Signal Analysis
Chairperson: Dr. Ming Yu, Beijing Forestry University, China

13:30-13:45	S063	Multi-Task Learning for Routability Prediction ***Jianqing Chen,*** *Fuzhou University, China*
13:45-14:00	S015	Spiking Neural Network with Silicon Oxide Memristive Devices in the Subthreshold Regime ***Viet Cuong Vu,*** *University College London (UCL), United Kingdom*
14:00-14:15	S070	Path-Driven Two-Stage Any-Angle Routing for Flow-Based Microfluidic Biochips ***Ziyang Chen,*** *College of Computer and Data Science, Fuzhou University, China*
14:15-14:30	S017	A Design Method for Automotive Front Styling Based on AIGC and Kansei Engineering ***Jin-Long Lin,*** *National Taipei University of Technology, Taiwan*
14:30-14:45	S029	Attention-based CNN-BiGRU Hybrid Model for Enhanced Parameter Prediction and Early Fault Warning in Electric Vehicle Charging ***Ming Yu,*** *Beijing Forestry University, China*
14:45-15:00	S061	FPGA Routing Algorithm Considering Maximum Delay Optimization ***Huahong Zhang,*** *Fuzhou University, China*
15:00-15:15	S702	Forecasting Study of Photovoltaic Power Generation Based on Long Short-Term Memory Networks ***Bingwei Fu,*** *Civil Aviation Flight University of China, Guanghan, China*
15:15-15:30	S126	A Feature Engineering Approach to Improving Clustering-Based Persona Generation ***Thanatat Wongabut,*** *King Mongkut's University of Technology Thonburi / Bangkok, Thailand*

ONSITE SESSION 3 (UTC+8)

June 21 (Saturday) **16:00-17:30**	**<多功能厅 5	三楼>** **<Function Room V | 3F>**

Onsite Session 3: Computer Vision and Image Processing Methods
Chairperson:

16:00-16:15	S090	Multi-Omics Cancer Subtype Classification with Shared-Specific Feature Learning and Graph Attention Network ***Shiping Wang,*** *Fuzhou University, China*
16:15-16:30	S028	Revitalizing Digitized Historical Collections: AI-driven Quality Control with Locally Trained Computational Models ***Siu-Sun Chung,*** *Senior Member, IEEE & Technology Support Services, The University of Hong Kong Libraries, Hong Kong, China*
16:30-16:45	S087	Incremental Dynamic Community Detection based on Local Rapid Update under Non-cooperative Game Theoretic Framework ***Ling Wu,*** *Fuzhou University, China*
16:45-17:00	S103	RSDD: A Rail Surface Defect Generation Model Based on Adaptive Semantic Positional Decoupled Diffusion ***Zengzhi Yang,*** *Southeast University, China*
17:00-17:15	S062	Network Delay Prediction Based on Graph Neural Network and Attention Mechanism ***Jiacheng Cai,*** *Fuzhou University, China*
17:15-17:30	S048	DRGaussian: Deformable Gaussian Splatting for High-fidelity Dynamic Scene Reconstruction with Depth Regularization ***Zhiyang Deng,*** *Beijing Normal-Hong Kong Baptist University, China*

ONSITE SESSION 4 (UTC+8)

June 21 (Saturday) **16:00-17:30**	**<董事会议室 | 三楼>** **<VIP Room | 3F>**

Onsite Session 4: Next Generation Artificial Intelligence Theory and Application
Chairperson: Prof. Xiaowen Zhang, The City University of New York, USA

16:00-16:15	S701	Sentiment Analysis of Amazon Customer Review by Using Deep Learning Models ***Xiaowen Zhang,*** *The City University of New York, USA*
16:15-16:30	S016	Application of Generative AI in the Interior Design of Autonomous Vehicles ***Chen-Rao Zhong,*** *National Taipei University of Technology, Taiwan*
16:30-16:45	S057	An AI-based Framework for MTX Market ***Yu-Heng Hsieh,*** *National Yang Ming Chiao Tung University, Taiwan*
16:45-17:00	S125	Revisiting Round-Trip Translation with LLMs and Agentic Translation ***Yiheng Wang,*** *Peking University, China*
17:00-17:15	S501	Symbolic Model Checking for Multi-Agent Systems Based on ATLE ***QixianYu,*** *Nanjing University of Aeronautics and Astronautics, China*
17:15-17:30	S009	HisHFL: Enhancing Hierarchical Federated Learning Security through Historical Knowledge ***Songsong Zhang,*** *Nankai University, China*

ONLINE SESSION 1 (UTC+8)

June 22 (Sunday) 09:00-12:35	Meeting Room A ZOOM ID: 892 7002 7512

Online Session 1: Application of AI in Information Technology
Chairperson:

09:00-09:20	Invited Talk	Neural Combinatorial Optimization for Practical Vehicle Routing Problems: Advances and Challenges ***Prof. Zhaoxia Guo, Sichuan University, China***
09:20-09:35	S066	Detection of Renal Cell Carcinoma Based on Clinical Data Using Machine Learning Approach ***Bohan Zhang,*** *McMaster University, Canada*
09:35-09:50	S128	Collaborating Agents with Large Language Models for Question-Answering Tasks ***Thien Huynh,*** *Ho Chi Minh University of Technology, Vietnam (HCMUT)*
09:50-10:05	S003	Sparse-view Cone-Beam CT Image Reconstruction Based on Conditional Generative Adversarial Networks for Sinogram Restoration ***Zihan Deng,*** *Harbin Institute of Technology, China*
10:05-10:20	S007	Knowledge Tracing Model Integrating Question Text Content and Cross-Level Contrastive Learning ***Wei Ji,*** *Jiangsu Normal University, China*
10:20-10:35	S045	Financial Inputs Prediction with Machine Learning and Covariance Matrix Applications ***Harun BENLİ,*** *R&D Department of Infina, Turkey*
10:35-10:50	S078	Fusion of reinforcement learning and residual correction for underwater image enhancement ***Shuang Lu,*** *Jiangsu Normal University, China*
10:50-11:05	S110	RefAssist: An AI Based Voice Assistant Framework to Notify Hospital Referral for Pregnant Women in Bangladesh ***Shakil Ahmed Pias,*** *Jahangirnagar University, Bangladesh*
11:05-11:20	S116	Quality Assessment of Chinese-French Translation Based on Language Model ***Jingyue Liu,*** *Zhejiang University of Science and Technology, China*
11:20-11:35	S012	Effect of Synthetic Data Augmentation on Plant Classification Accuracy using MobileNetV2, EfficientNet-B0, and ResNet-18 ***Fieter Brain Pasaribu,*** *Universitas Pendidikan Ganesha, Indonesia*
11:35-11:50	S102	MSFAEGD: Efficient Forest Smoke Detection Network Based on Grounding Dino ***Tao Zhang,*** *Southeast University, China*
11:50-12:05	S067	AI-Driven Automated UML Modeling Framework Design and Practice ***Xiaoli Yang,*** *Chengdu Neusoft University, China*
12:05-12:20	S100	LFS-YOLO: A lightweight forest smoke detection network based on YOLOv8-n

		Ruiqing Xu, *Southeast University, China*
12:20-12:35	S002	Enhanced Dialogue Flow: Non-Sentential Utterance Rewrite for Co-reference and Ellipsis Resolution ***Jie Wang,*** *Shenzhen Institute of Advanced Technology, CAS; Sangfor Technologies Inc.; China*

ONLINE SESSION 2 (UTC+8)

June 22 (Sunday)
09:00-12:20

Meeting Room B
ZOOM ID: 898 0474 5422

Online Session 2: Design and Management of Modern Integrated Information Systems based on Data-driven

Chairperson: Dr. Yan Zhang, Tsinghua University, China

09:00-09:20	Invited Talk	CVS: A Novel Framework for Personality-based Automatic CV Sorting Using Deep Learning ***Dr. Nikhil Patel,*** *Deloitte Consulting LLP, USA*
09:20-09:35	S018	Feature-Based Optimization for Log Anomaly Detection Methods ***Yongxiang Wang,*** *South China University of Technology/ Sun Yat-sen University, China*
09:35-09:50	S707	Exploring SEIR Epidemiological Modeling using Physics-Informed Neural Networks ***Liang Kong,*** *University of Illinois Springfield, United States*
09:50-10:05	S123	Evaluation of Students' Experience in Using Online Learning Platforms as Supporting Tools for Learning Technology Courses in Higher Education Institutions in Indonesia ***Ikhsan Dhori and Assyifa Azzahra,*** *Bina Nusantara University, Indonesia*
10:05-10:20	S114	Green Manufacturing Strategy Based on Improved Particle Swarm Optimization Algorithm ***Wenchao Fang,*** *Guangdong Polytechnic of Industry and Commerce, China*
10:20-10:35	S024	Research on Database Performance Comparison Testing Methods Based on Benchmarks ***Hui Wang,*** *Tsinghua University, China*
10:35-10:50	S053	A Scalable Synthesis-based Approach for Autonomous Airport Runway Management ***Jialong Li,*** *Waseda University, Japan*
10:50-11:05	S058	Re-imagining Automotive Software Development: RoHo-ASI Framework for SDV ***Cao Junzhe,*** *Shanghai Maritime University, China*
11:05-11:20	S069	Research on Global Ship Navigation Trajectories and Parameter Prediction of Grid-LSTM-GMM ***Guojia Chen,*** *Southeast University, China*
11:20-11:35	S091	Textual Description of Dynamic Behaviors based on Attention Mechanism ***Mingzhe Xie,*** *Guangdong University of Science and Technology, China*
11:35-11:50	S099	Adaptive Retrieval-Augmented Embodied Intelligence RAG Reasoning Framework ***Mengmeng Chen,*** *Dalian University, China*
11:50-12:05	S107	A Study on Product Recommendation Based on Dynamically Adjusted Multimodal Weights ***Bingxue Zhao,*** *University of Chinese Academy of Sciences, Hangzhou, China*

12:05-12:20	S704	Adapting LLM to Generate Vulnerability Descriptions and Repair Suggestions ***Yekun Ke,*** *Harbin Institute of Technology, China*

POSTER DISPLAY (UTC+8)

June 21 (Saturday) 13:30-15:40		< 3F>
1#	S047	Research on Improved ABSA: Synergistic effect of sentence splitting and data enhancement
2#	S089	Enhancing Visual Odometry: Integrating Load Variability and Optimized RGB-Depth Fusion in Transformer Networks

DELEGATE LIST

1#	**Yang Lu,** North China Institute of Computing Technology, China
2#	**Bin Fu,** North China Institute of Computing Technology, China
3#	**Yiwen Zhang,** North China Institute of Computing Technology, China
4#	**Jin Zhang,** North China Institute of Computing Technology, China
5#	**Xue Li**, North China Institute of Computing Technology, China
6#	**Luh Joni Erawati Dewi,** Universitas Pendidikan Ganesha, Indonesia
7#	**Chen Yan,** Shanghai Jiguang Polytechnic Colledge, China
8#	**Ni Wayan Damar Wangi,** SMAN I Singaraja Bali, Indonesia
9#	**Ni Wayan Damar Wangi,** SMAN I Singaraja Bali, Indonesia
10#	**Yueyang Pi,** Fuzhou University, China
11#	**Zhijun Chen,** Fuzhou University, China
12#	**Yongquan Shi,** Fuzhou University, China
13#	**Jiecheng Wu,** Fuzhou University, China
14#	**Wendi Zhao,** Fuzhou University, China
15#	**Weiran Liao,** Fuzhou University, China
16#	**Jie Lian,** Fuzhou University, China
17#	**Jie Zhang,** Fuzhou University, China
18#	**Zihan Fang,** Fuzhou University, China
19#	**Chunming Wu,** Fuzhou University, China
20#	**Yilin Wu,** Fuzhou University, China
21#	**Zhan Lin,** Fuzhou University, China
22#	**Feng Wang,** Fuzhou University, China
23#	**Weihong Lin,** Fuzhou University, China
24#	**Hang Lv,** Fuzhou University, China

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