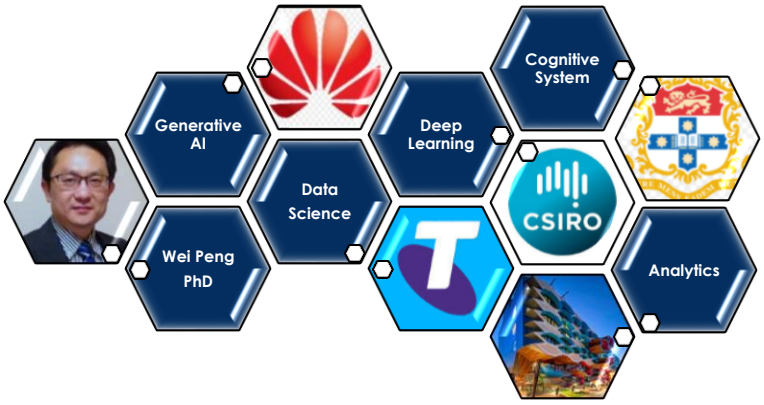

Highlights

A/Professor Wei Peng is pioneering expert in **Artificial Intelligence (AI) and Cognitive Agents** with over 15 years of experience in driving AI research, innovation, and commercialization in Fortune 100 companies and leading research institutions. He is dedicated to advancing AI development, shaping strategic technology directions, and seamlessly integrating AI solutions into commercial products. As a **Principal Research Fellow** at School of Engineering, RMIT University, Wei leads industrial AI innovation, bridging the gap between research and real-world applications. His research focuses on Large Language Models, Knowledge Representation, Cognitive Agents, and Embodied AI, along with their applications.

Past Posts

Before joining RMIT, Wei held **principal research leadership** roles in the technology sector, leading AI research and development teams focused on **generative AI** and enterprise AI solutions. As **Director and Principal Research Scientist** at the IT Innovation and Research Center (IIRC), **Huawei Technologies**, he oversaw multiple research labs and managed projects on **Large Language Models, Multimodal Learning, Cognitive Agents, and AIOps**. Wei was responsible for defining corporate technology strategies, directing high-impact AI initiatives, and managing a research portfolio exceeding $10 million USD. His leadership spanned early-stage innovation, prototyping, and the deployment of AI-driven solutions in large-scale commercial products.

A key figure in global AI collaboration, Wei has built strong research partnerships with top universities. His previous experience includes serving as a Senior Lecturer at La Trobe University and holding senior technical roles at Telstra, Lenovo, and AUSTRAC, where he applied AI across various domains.

Academics

An active contributor to the AI research community, Wei has published over 70 peer-reviewed AI papers, holds multiple patents, and serves on **top AI conference** committees such as ACL, EMNLP, AAAI, and NAACL. His passion in Generative AI, including Intelligent Assistants, Agents, and Large Language Models, continues to drive human-centric AI solutions that enhance industrial efficiency and human intelligence.

Commercial Development

Wei possesses deep expertise in **translating scientific research** into commercial AI solutions, successfully applying AI techniques across industries such as targeted sales, healthcare, smart grids, engineering design, and finance. With a proven track record of delivering impact, Wei leads the development of Generative AI services, including Enterprise Large Language Models, Text Summarization, OCR, Speech Machine Translation, and Speaker Diarization, optimizing enterprise operations and efficiency.

Resume – A/Professor Wei Peng

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Nationality: Australian

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My LinkedIn
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Seeking Leadership Role in Research and Technology Development

Education (in reverse chronological order)

03/2003 – 08/2006	PhD in Artificial Intelligence at University of Sydney Key Centre of Design Computing and Cognition, Sydney, Australia Thesis – "A Design Interaction Tool that Adapts" (developing a cognitive memory system that learns and adapts to interactions) Supervisor – Professor John S Gero
03/2000 – 12/2001	Master of Information Science (Database Science) at University of New South Wales, School of Computer Science & Engineering, Sydney, Australia
09/1988 – 07/1992	Bachelor of Electrical Engineering in Industrial Electric Automation Wuhan University of Technology, Wuhan, China

Research Grants

2018 - 2019	Australian Federal Government Innovation Connections Grant – Intelligent Production Planning System with Professor Damminda Alahakoon
2018	Research Collaboration Grant from Australian Chase Sun – AI-based Chinese Medicine Disease and Prescription Recommendation Algorithms with Professor Damminda Alahakoon
2017-2019	La Trobe University Research Start-Up Grant – Deep Learning Memory Neural Network for Language Understanding
2017	Australian Federal Government Innovation Grant – Adaptive Practical Smart Picking System with Professor Damminda Alahakoon and Dr. Daswin De Silva
2009	ARC Linkage Grant 2009 (LP100200638) – Practice-based SNOMED Concept Learning for Drug-Disease Precaution Early Detection and Refinement with Professor Xinghuo Yu, Professor Jeff Hughs – Adapted

Professional Awards

2021	Excellent Team Award in Huawei IT for outstanding achievements in talent hire, Huawei Technologies, Co., Ltd.
2021	Excellent Team Award in Huawei AI Enablement for outstanding achievements in leading development of Core NLP capabilities, Huawei Technologies, Co., Ltd.
2019	Huawei Individual Gold Medal Award – Outstanding Contribution Individual Award, Future Star Award for outstanding achievements for leading NLP and neural machine translation initiatives, Huawei Technologies, Co., Ltd.
2011-2014	Honorary Adjunct Principal Research Fellow for Applied AI in School of Electrical and Computer Engineering, RMIT University
2007	Teamwork Award 2007, CSIRO ICT Centre, CSIRO, Australia
2006	Winner of Cooperative Research Centre for Construction Innovation 2006 Scholar Award Australia
2003	Winner of Cooperative Research Centre in Construction Innovation (CRC-CI) PhD scholarship on "Agents in Design"

Experience (in reverse chronological order)

02/2025 – Now

Principal Research Fellow in Artificial Intelligence, School of Engineering, RMIT University, Australia

- Lead AI innovation across multiple industrial sectors (renewable energy, manufacturing and banking, etc.)
- Lead research in Large Language Model, Knowledge Representation Learning, Cognitive Agents, Embodied AI, along with their applications

04/2023 – 01/2025

Director/Principal Research Scientist, IT Innovation and Research Center, Technical Director of AI-TMG, Huawei Technologies

Responsibilities

- Lead 30+ scientists and engineers in advanced IT R&D in Perception, Cognition, Decision Labs
- Lead innovation initiatives and research collaboration in Huawei IT to support workforce, customer service, IT operations leveraging large language models
- Lead Huawei IT AI-TMG (AI Technology Management Group) developing AI strategy and technical standard
- Lead research in Generative AI, developing data processing and enhancement pipeline for AIGC
- Lead technology strategic/business planning (TSP/TBP) and technology road-maps designing

Achievements

- Establishment of **Huawei-Beijing University Innovation Lab** in advanced speech and language semantics
- 2024 Technology roadmaps for Huawei IT System Platform (HIS)

- Research POCs (LLM Knowledge Dialogue HR System, BabelTar Summarization, Speaker Extraction, Fault Root-cause Analysis) commercialized in Huawei Information System (HIS) Products: HR IT helpdesk, Welink, WeOps, etc.
- Text summarization wins **No. 1 position** at Allen Institute for AI GENIE-Summarization XSUM leaderboard
- A strong track record of research outcomes published in top AI conferences and journals (11 in NLP, 4 in Multi-modal, 3 in CV, 1 in Cybersecurity)

01/2021 – 04/2023 **Director/Principal AI Scientist, AI Application Research Center, Product Manager of Artificial General Intelligence, Huawei Technologies**

Responsibilities

- Lead 50+ scientists and engineers in research and development of AI products/algorithms in NLP/CV/Data Science/Multidisciplinary AI
- Lead innovation initiatives and research collaboration in Huawei IT
- Lead Huawei IT AI-TMG (AI Technology Management Group) in developing AI strategy and technical standard
- Develop research culture and in charge of talent hire

Achievements

- Strong research partnerships with top-tier institutions (Tsinghua, Beijing University, HIT etc.) with a track record of research publications in top conferences and journals (23 publications with 16 in NLP, 3 in CV, 1 in AI in medicine, 3 patents)
- Generative AI SDKs with **billions** calls yearly covering Manufacturing (OCR/Face Recognition/Defect Detection), Customer Service AI (Dialog/KGQA), Conference AI (Speech Machine Translation/Speaker Diarization), etc.
- Lead team to achieve rate of research transfer 50% (research papers and patents)
- Develop Huawei AI application blue book, AI standard and strategy plan
- Recruitment of two prestigious young talents
- Win WMT 2021 biomedical translation tasks (**No. 1** place for EN→FR, ZH→EN, EN↔IT)

01/2019 – 12/2020 **Principal NLP Scientist, AI Application Research Center, Huawei Technologies**

Responsibilities

- Lead developing neural machine translation systems (NMT) for low resource language
- Lead domain adaptation research for NMT
- Lead data augmentation (sentence alignment, dictionary-enhanced) research for NMT
- Lead developing multi-turn, multi-domain dialog system
- Lead research in dialogue management methods (DST, Dialog Policy)

Achievements

- NMT models deployed to Huawei HMS and HIS with BLEU scores for 20 language pairs outperforming Bing Translator
- BLEU scores of domain-specific NMT outperforming Google Translator
- Win WMT 2020 biomedical translation tasks (**No. 1** place for EN↔FR, EN→DE, EN→IT; **2nd** place for EN→RU, DE→EN, RU→EN, IT→EN)
- Win WMT 2020 parallel corpus filtering tasks (**No. 1** place for Pashto, **No. 2** for Khmer)
- Win WMT 2019 biomedical translation tasks (**No. 1** place for EN↔FR, EN↔DE; **2nd** place for EN↔ZH)
- A track record of research results published in top conferences and journals (8 in NLP, 5 in AI in medicine, 2 patents)

08/2016 – 12/2018 **Senior Lecturer in Business Analytics, Research Centre for Data Analytics and Cognition, La Trobe University, Australia**

Responsibilities

- Perform research in cognitive deep learning, apply data science, artificial intelligence to health care (collaborated with Prof. Mingguang He from University of Melbourne), social media analysis in service (with Prof. John Gero from UNC), smart grids (with Prof. Xinghuo Yu from RMIT University);
- Develop domestic and international collaborative research group focusing on deep learning;
- Lead research project to develop constructive dynamic memory networks in natural Language understanding (with La Trobe University Research Start-up Grant);
- Lead international collaborative research to develop AI-based recommendation algorithms for Chinese Medicine (with Tianjin Chase Sun Pharmaceutical);
- Lead industry mobile computing project aiming to enhance effectiveness, efficiency of warehouse picking (with Shiny Pty Ltd);
- Lead advanced analytics project aiming to enhance customer experience (with Shiny);
- Teach and coordinate subjects of Principle of Business Analytics, Customer and Social Media Analytics and Analytics Industrial Internship Capstone projects;
- Co-supervise PhD candidates in applied artificial intelligence and data analytics

Achievements

- High quality publications: 1 edited book, 4 journal papers, 2 conference papers
- Program Co-chair for the 30th Australasian Joint Conference on Artificial Intelligence
- Student feedback 4.4 out of 5 (with mode 5) for Master of Business Analytics Subjects

04/2015 – 08/2016 **Senior Data Scientist at Big Data Analytics, CTO & Innovation, Telstra**

Responsibilities

- Develop customer experience score board and predictive model for fixed broadband customers (Hive, Qlik sense, Random Forest in h2o)
- Develop video systems for face and object recognition (OpenCV, Scikit-learn SVM)
- Lead developing text sentiment engine using machine learning approaches for NPS text Verbatim (NB Multinomial, SVM from R)
- Develop customer cross sell predictive models based on live chat text data, click streams and demographic data (algorithms NB Multinomial, GBM from h2o)
- Responsible for co-developing complaints prediction models with imbalanced data (GBM, Random Forest, C4.5 from h2o, RWeka from R)
- Prepare Kaggle data mining competition project proposal relating post-paid mobile customer insights/experience
- Sourcing big data for SAS Telstra Hackathon (customer journey data from big data lake using Hive, SAS VA)
- Supervise junior data scientists (PhD data science interns)
- Contribute to maintain data analytic server and tools (on R multicore servers) for data science group

Achievements

- Text sentiment engine prototype with accuracy above 92% in real time testing
- Cross-sell predictive model on live chat text with AUC 0.8
- Enhanced complaint prediction model with +20% recall rate over benchmark model
- Enhanced cross sell prediction with lift of 6.6 for top 1% population over benchmark
- Fixed broadband customer interaction prediction model with 0.80 AUC

01/2014 – 04/2015 **Technical Lead Data Scientist at Global Analytics Hub – Lenovo**

Responsibilities

- Responsible for setting-up advanced big data analytic platform, managing junior data scientist/engineer, presenting/demo to global leadership/senior executives
- In charge of developing advanced data analytic tools for social marketing purpose including customer segmentation/loyalty program from social media (Twitter, 微博) using machine learning and NLP algorithms (Latent Dirichlet Allocation)

- Lead developing context-based sentiment analysis and components categorisation to discover customer and product insights from unstructured data
- Lead developing topic trends detection to guide contents generation and maximise social media customer engagements
- Lead developing ontology, dictionary on interesting topics and applied them to theme detection for social media (twitter) data
- Support customer-centric product design (Laptop, Smartphone features) using advanced statistics – conjoint analysis to produce optimal product features
- Support brand channels insights from marketing research data using statistic hypothesis testing
- Support social media listening for customer insights deep-dive using text mining (Topic Modelling)
- Support global corporate strategy via providing advanced data-driven solution

Achievements

- Social media customer segmentation/classification engine that is used to automatically identify Lenovo target customer segments from social media based on text contents (in R tm, topicmodels, openNLP, shiny, RWeka, etc.) – demo available
- Social emerging trend engine based on twitter, Google hot trends (in R shiny, twitteR, RCurl) – demo available
- Customer insights to support Lenovo internal stakeholders

09/2010 - 12/2013 **Senior Data Mining Analyst/Acting Manager at Australian Transaction Reports and Analysis Centre – AUSTRAC**

Responsibilities

- Leading data science projects providing insights/metrics/monitoring for financial transactional data
- Chief Investigator for near-real-time funds flow prediction via developing time series forecast models to identify abnormal financial transactions
- Chief Investigator for entity behaviour pattern recognition via developing text mining models
- Chief Investigator for funds flow analysis using multivariate statistics and social network analysis to identify significant entities and relationships
- Chief Investigator for developing metrics for gauging effects of cross agency projects through behaviour analysis
- Hand-on data extraction/processing/mining on heterogeneous structured and unstructured data source
- Data analytic report writing and outcome presentations

Achievements

- Data mining/machine learning and analytic systems for financial data
- Research reports provide solutions to impact on national strategic and operational decision-making

07/2008 – 09/2010 **Research Fellow at School of Electrical and Computer Engineering, RMIT University, Melbourne, Australia**

Responsibilities

- Lead data analytic research project in developing smart energy application in short-term load/peak demand prediction for electricity using statistic algorithm (ARIMA, ETS, ANN)
- Apply artificial intelligent (multi-agents) methods to simulate end-use scenarios of household electricity loads accommodating historical weather data and appliance models (NetLogo)
- Develop middle-term, long-term load forecasting methods using multivariate statistics with end-use scenarios and historical weather data

- Lead research project in developing artificial intelligence (Abductive Reasoning, OWL Ontology) models for geometric reasoning in engineering design
- Coordinate local group seminar in information system engineering lab and provide data mining/analysis training to the team of researchers
- Liaise with industrial, academic collaborators to initiate projects in energy, water resource and health informatics areas

Achievements

- A Multiple-run Interactive Certainty Network in explanation generation (implemented in JAVA)
- ARC-linkage grant proposals in smart adverse drug interaction detection system and SNOMED concept learning for drug-disease precaution early detection and refinement
- High quality publications: 1 book, 1 journal paper, 1 book chapter, 5 conference papers

02/2007 – 07/2008 **Research Scientist at Commonwealth Scientific and Industrial Research Organisation (CSIRO), Tasmanian ICT Centre, Australia**

Responsibilities

- Develop artificial intelligence stochastic model simulating/analysing household demand data for Energy Transformed Flagship (Smart Grid)
- Develop battery coordination algorithm (by introducing new battery coordination algorithms and testing new capability) to optimise distributed generation
- Design and implement advanced data management/AI platform for hydrology simulation and intelligent irrigation control
- Design and implement machine learning algorithms for soil profile classification
- Co-author journal, conference papers and project reports

Achievements

- New features for CSIRO patented "StigSpace" Simulator (in Matlab)
- Stigspace Simulator Software Benchmark report, Stigspace Simulator Software Description report
- Journal publication in IEEE intelligent systems

03/2003 – 12/2006 **Research Associate at Key Centre of Design Computing and Cognition, University of Sydney, Australia**

Responsibilities

- Situated Agents, Artificial Intelligence projects with CRC-CI
- Develop UI, rule schema for DesignCheck™ using Java, Express-X
- System integration with CAD model, EDM database and report system
- Develop data mining algorithms for smart building asset management in AIMM™ (Agents in Maintenance Management)
- Co-author academic papers and projects reports

Achievements

- A commercialized software system DesignCheck™ (in Java) which is a knowledge-based system automatically check CAD design compliance to Australian building code
- A prototype system package AIMM™ (Agents in Maintenance Management)

Professional Services

Expert Board Committee of NLG (Chinese Information Processing Society of China)
Reviewer for Artificial Intelligence Review
Reviewer for Information Sciences
Reviewer for Applied Energy (AE)
Regular Reviewer for ACL ARR
Program Committee (PC) Member for AAAI 2023, 2024, 2025
Program Committee (PC) Member for ICLR 2025
Program Committee (PC) Member for NAACL 2021, 2024

Program Committee (PC) Member for EACL 2023, ICASSP 2023
Program Committee (PC) Member for ACMMM 2023
Program Committee (PC) Member for EMNLP 2021, 2022
Program Committee (PC) Member for AACL 2020, 2022
Program Committee (PC) Member for NLP4ConvAI 2021, 2022, 2023
Program Committee (PC) Member for ACL 2021, 2023
Reviewer for NLPCC 2020
Program Committee (PC) Member for the 31st Australasian Joint Conference on Artificial Intelligence (AI 2018)
Program Co-Chair for the 30th Australasian Joint Conference on Artificial Intelligence (AI'17)
Special Session Co-Chair for the 43rd Annual Conference of the IEEE Industrial Electronics Society (IECON 2017)
Reviewer for Australasian Journal of Information Systems (AJIS)
Keynote speakers in 2015 Big Data & Analytics Innovation Summit, Singapore.
Program Committee (PC) Member for the 13th Australasian Data Mining Conference (AusDM2015)
Program Committee (PC) Member for the Twelfth Australasian Data Mining Conference (AusDM2014)
Program Committee (PC) Member for the 23rd Australasian Joint Conference on Artificial Intelligence (AI'10)
Program Committee (PC) Member for the 22nd Australasian Joint Conference on Artificial Intelligence (AI'09)
PC Member for Intel. Agents in Sensor Networks and Sensor Web 09
PC Member for WISM'09-AICI'09
Reviewer for Special Issue in Journal of Soft Computing
Reviewer for IEEE Transactions on Industrial Electronics, IECON 09

Selected Research Publications

1. J. Yang, B. Yan, R. Li, Z. Zhou, X. Chen, Z. Feng, **W. Peng**. 2025. Gradient Co-occurrence Analysis for Detecting Unsafe Prompts in Large Language Models. arXive preprint arXiv:2502.12411, https://arxiv.org/abs/2502.12411.
2. J. Yang, R. Li, W. Wang, Z. Zhou, Z. Feng, **W. Peng**. 2025. LF-Steering: Latent Feature Activation Steering for Enhancing Semantic Consistency in Large Language Models. arXive preprint arXiv:2501.11036, https://arxiv.org/abs/2501.11036.
3. H. Liu, R. Li, W. Xiong, Z. Zhou, **W. Peng**. 2025. WorkTeam: Constructing Workflow from Natural Language with Multi-Agents. In *Proceedings of the 2025 Conference of the Nations of the Americas Chapter of the Association for Computational Linguistics: Human Language Technologies (Volume 3: Industry Track)*, pages 20–35, Albuquerque, New Mexico. Association for Computational Linguistics.
4. W. Wang, J. Yang, **W. Peng**. 2025. Semantics-Adaptive Activation Intervention for LLMs via Dynamic Steering Vectors. In *Proceedings of the International Conference on Learning Representations (ICLR 2025)*, Singapore, Accepted to Appear, https://arxiv.org/abs/2410.12299.
5. H. Cao, H. Miao, W. Wang, L. Li, **W. Peng**, T. Zhao. Bilingual phrase induction with local hard negative sampling. *CAAI Trans. Intell. Technol.* 10(1), 147-159 (2025). https://doi.org/10.1049/cit2.12383.
6. W. Xiong, Y. Song, X. Zhao, W. Wu, X. Wang, K. Wang, C. Li, **W. Peng**, S. Li. 2024. Watch Every Step! LLM Agent Learning via Iterative Step-level Process Refinement. In *Proceedings of the 2024 Conference on Empirical Methods in Natural Language Processing (EMNLP 2024)*, pages 1556-1572, Miami, Florida, USA: Association for Computational Linguistics.
7. X. Zhao, K. Wang, **W. Peng**. 2024. An Electoral Approach to Diversify LLM-based Multi-Agent Collective Decision-Making. In *Proceedings of the 2024 Conference on Empirical Methods in Natural Language Processing (EMNLP 2024)*, pages 2712-2727, Miami, Florida, USA. Association for Computational Linguistics.
8. Y. Song, W. Xiong, X. Zhao, D. Zhu, W. Wu, K. Wang, C. Li, **W. Peng**, S. Li. 2024. AgentBank: Towards

Generalized LLM Agents via Fine-Tuning on 50000+ Interaction Trajectories. In *Findings of the Association for Computational Linguistics: EMNLP 2024*, pages 2124-2141, Miami, Florida, USA. Association for Computational Linguistics.

9. J. Yang, D. Chen, Y. Sun, R. Li, Z. Feng, **W. Peng**. 2024. Enhancing Semantic Consistency of Large Language Models through Model Editing: An Interpretability-Oriented Approach. In *Findings of the Association for Computational Linguistics: ACL 2024*, pages 3343-3353, Bangkok, Thailand. Association for Computational Linguistics.
10. Y. Chen, D. Chen, R. Liu, S. Zhou, W. Xue and **W. Peng**, "Align Before Adapt: Leveraging Entity-to-Region Alignments for Generalizable Video Action Recognition," *2024 IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)*, Seattle, WA, USA, 2024, pp. 18688-18698, doi: 10.1109/CVPR52733.2024.01768.
11. W. Wang, B. Haddow, A. Birch, **W. Peng**. 2024. Assessing Factual Reliability of Large Language Model Knowledge. In *Proceedings of the 2024 Annual Conference of the North American Chapter of the Association for Computational Linguistics (Volume 1: Long Papers)*, pages 805-819, Mexico City, Mexico. Association for Computational Linguistics.
12. X. Zhao, K. Wang, **W. Peng**. 2024. Measuring the Inconsistency of Large Language Models in Preferential Ranking. In *Proceedings of the 1st Workshop on Towards Knowledgeable Language Models (KnowLLM 2024)*, pages 171-176, Bangkok, Thailand. Association for Computational Linguistics.
13. J. Jiang, X. Yin, X. Wan, **W. Peng**, R. Li, J. Yang, Y. Zhou. 2024. Contextual Modeling for Document-level ASR Error Correction. In *Proceedings of the 2024 Joint International Conference on Computational Linguistics, Language Resources and Evaluation (LREC-COLING 2024)*, pages 3855–3867, Torino, Italia. ELRA and ICCL.
14. J. Jiang, X. Wan, **W. Peng**, R. Li, J. Yang and Y. Zhou, "Cross Modal Training for ASR Error Correction with Contrastive Learning," *ICASSP 2024 - 2024 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, Seoul, Korea, Republic of, 2024, pp. 12246-12250, doi: 10.1109/ICASSP48485.2024.10446621.
15. Z. Yao, H. Zhang, Y. Guo, X. Tian, **W. Peng**, Y. Zou, LY Zhang, C. Chen, "Reverse Backdoor Distillation: Towards Online Backdoor Attack Detection for Deep Neural Network Models," in *IEEE Transactions on Dependable and Secure Computing*, vol. 21, no. 06, pp. 5098-5111, Nov.-Dec. 2024, doi: 10.1109/TDSC.2024.3369751.
16. Wang, K.; Zhao, X.; and **Peng, W**. 2024. Learning from Failure: Improving Meeting Summarization without Good Samples. In *Proceedings of the AAAI Conference on Artificial Intelligence*, 38(17), 19153-19161. https://doi.org/10.1609/aaai.v38i17.29883.
17. Zhang, Z.; Lu, N.; Liao, M.; Huang, Y.; Li, C.; Wang, M.; and **Peng, W**. 2024. Self-distillation Regularized Connectionist Temporal Classification Loss for Text Recognition: A Simple Yet Effective Approach. In *Proceedings of the AAAI Conference on Artificial Intelligence*, 38(7), 7441-7449. https://doi.org/10.1609/aaai.v38i7.285.
18. H. Liu, W. Xue, Y. Chen, D. Chen, X. Zhao, K. Wang, L. Hou, R. Li, **W. Peng**. 2024. A Survey on Hallucination in Large Vision-Language Models. arXive preprint arXiv:2402.00253, https://arxiv.org/abs/2402.00253.
19. Z. Wan, X. Wan, **W. Peng**, R. Li. 2023. New Datasets and Controllable Iterative Data Augmentation Method for Code-switching ASR Error Correction. In *Findings of the Association for Computational Linguistics: EMNLP 2023*, pages 8075-8087, Singapore. Association for Computational Linguistics.
20. X. Zhao, K. Wang, **W. Peng**. 2023. ORCHID: A Chinese Debate Corpus for Target-Independent Stance Detection and Argumentative Dialogue Summarization. In *Proceedings of the 2023 Conference on Empirical Methods in Natural Language Processing (EMNLP 2023, Long Paper)*, pages 9358-9375, Singapore. Association for Computational Linguistics.
21. K. Wang, X. Zhao, Y. Li, **W. Peng**. 2023. PROSE: A Pronoun Omission Solution for Chinese-English Spoken Language Translation. In *Proceedings of the 2023 Conference on Empirical Methods in Natural Language Processing (EMNLP 2023, Long Paper)*, pages 2297-2311, Singapore. Association for Computational Linguistics.
22. K. Wang, X. Zhao, Y. Li, **W. Peng**. 2023. M^3Seg: A Maximum-Minimum Mutual Information Paradigm for Unsupervised Topic Segmentation in ASR Transcripts. In *Proceedings of the 2023 Conference on Empirical Methods in Natural Language Processing (EMNLP 2023)*, pages 7928-7934, Singapore. Association for Computational Linguistics.

23. R. Li and **W. Peng**. 2023. Dictionary-driven Chinese ASR Entity Correction with Controllable Decoding. In *2023 Asia Pacific Signal and Information Processing Association Annual Summit and Conference (APSIPA ASC)*, pages 1542-1548, Taipei, Taiwan.
24. R. Liu, N. Lu, D. Chen, C. Li, Z. Yuan, and **W. Peng**. 2023. PBFormer: Capturing Complex Scene Text Shape with Polynomial Band Transformer. In *Proceedings of the 31st ACM International Conference on Multimedia (MM'23)*, pages 2112-2120, Ottawa, Canada. https://doi.org/10.1145/3581783.3612059.
25. Y. Chen, D. Chen, R. Liu, H. Li and **W. Peng**, "Video Action Recognition with Attentive Semantic Units," *2023 IEEE/CVF International Conference on Computer Vision (ICCV)*, Paris, France, 2023, pp. 10170-10180, doi: 10.1109/ICCV51070.2023.00933.
26. H. Liu, D. Chen, R. Li, W. Xue, **W. Peng**. 2023. Video Summarization Leveraging Multi-modal Information for Presentations. In *Proceedings of Interspeech 2023*, pages 5251-5252, Dublin, Ireland.
27. W. Xue, D. Chen, B. Yu, Y. Chen, S. Zhou, **W. Peng**. 2023. ChartDETR: A Multi-shape Detection Network for Visual Chart Recognition. arXive preprint arXiv:2308.07743, https://arxiv.org/abs/2308.07743.
28. Y. Sun, R. Zhang, J. Yang, **W. Peng**. 2023. Intent Discovery with Frame-guided Semantic Regularization and Augmentation. In *Findings of the Association for Computational Linguistics: ACL 2023*, pages 14254-14261, Toronto, Canada. Association for Computational Linguistics, 2023.
29. H. Cao, T. Zhao, W. Wang, **W. Peng**, Bilingual word embedding fusion for robust unsupervised bilingual lexicon induction, *Information Fusion*, Volume 97, 2023, 101818, ISSN 1566-2535, https://doi.org/10.1016/j.inffus.2023.101818.
30. Y. Huang, N. Lu, D. Chen, Y. Li, Z. Xie, S. Zhu, L. Gao, **W. Peng**, "Improving Table Structure Recognition with Visual-Alignment Sequential Coordinate Modeling," *2023 IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)*, Vancouver, BC, Canada, 2023, pp. 11134-11143, doi: 10.1109/CVPR52729.2023.01071.
31. W. Wang, C.M. Lee, J. Liu, T. Colakoglu, **W. Peng**. 2023. An Empirical Study of Cyclical Learning Rate on Neural Machine Translation, *Natural Language Engineering*, 29(2):316-336. Cambridge University Press. doi:10.1017/S135132492200002X.
32. R. Zhang, Y. Sun, J. Yang and **W. Peng**, "Knowledge-Augmented Frame Semantic Parsing with Hybrid Prompt-Tuning," *ICASSP 2023 - 2023 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, Rhodes Island, Greece, 2023, pp. 1-5, doi: 10.1109/ICASSP49357.2023.10095476.
33. W. Wang, **W. Peng**, Q. Liu. 2023. Learning Homographic Disambiguation Representation for Neural Machine Translation. arXiv preprint arXiv:2304.05860, https://arxiv.org/abs/2304.05860.
34. W. Wang, X. Meng, S. Yan, Y. Tian, **W. Peng**. 2022. Huawei BabelTar NMT at WMT22 Biomedical Translation Task: How we further improve domain-specific NMT. In *Proceedings of the Seventh Conference on Machine Translation (WMT22): Shared Task Papers*, pages 930-935, Abu Dhabi, United Arab Emirates. Association for Computational Linguistics.
35. B. Zeng, B. Liu, H. Li, X. Liu, J. Liu, D. Chen, **W. Peng**, B. Zhang. 2022. FNeVR: Neural Volume Rendering for Face Animation. In *Proceedings of the 36th International Conference on Neural Information Processing Systems (NeurIPS 2022)*, pages 22451-22462, New Orleans, USA.
36. Z. Feng, H. Cao, T. Zhao, W. Wang, **W. Peng**. 2022. Cross-lingual Feature Extraction from Monolingual Corpora for Low-resource Unsupervised Bilingual Lexicon Induction. In *Proceedings of the 29th International Conference on Computational Linguistics (COLING 2022)*, pages 5278-5287, Gyeongju, Republic of Korea. International Committee on Computational Linguistics.
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