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EDUCATION

| | |
|---|-----------------------|
| Doctor of Philosophy <i>Control Science and Engineering</i> Tsinghua University, Beijing, China | Sep. 2001 – Jun. 2005 |
| Master of Science <i>Software Engineering</i> University of Macau, Macao, China | Sep. 1997 – Apr. 1999 |
| Bachelor of Science <i>Software Engineering</i> University of Macau, Macao, China | Sep. 1991 – Jul. 1995 |

ACADEMIC EXPERIENCE

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| Full Professor University of Macau, Macao, China | Aug. 2025 – present |
| Associate Professor University of Macau, Macao, China | Aug. 2017 – Jul. 2025 |
| Interim Associate Dean of Faculty of Science and Technology University of Macau, Macao, China | Jul. 2022 – Jun. 2023 |
| Assistant Professor University of Macau, Macao, China | Feb. 2008 – Jul. 2017 |
| Research Fellow University of Macau, Macao, China | Sep. 2005 – Jan. 2008 |
| Visiting Scholar Dublin City University, Dublin, Ireland | Sep. 2018 – Nov. 2018 |
| Project Manager (2nd Appointment) Institute of Systems and Computer Engineering of Macau (INESC-Macau), Macao, China | Feb. 2008 – Dec. 2011 |
| Research Fellow (2nd Appointment) Institute of Systems and Computer Engineering of Macau (INESC-Macau), Macao, China | Sep. 2005 – Jan. 2008 |

HONORS AND AWARDS

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|--|------|
| University-level Teaching Excellence Award University of Macau, Macao, China | 2024 |
| FST Teaching Excellence Award Faculty of Science and Technology, University of Macau, Macao, China | 2024 |
| Excellence Research Award Tencent AI Lab Rhino-Bird Research Program, China | 2024 |
| Technological Invention Award <i>Second Prize</i> The fifth Macau Science and Technology Award, Macao, China | 2022 |
| Research Excellence Award Faculty of Science and Technology, University of Macau, Macao, China | 2022 |
| Incentive Scheme for Outstanding Academic Staff University of Macau Development Foundation (UMDF), University of Macau, Macao, China | 2022 |

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| Teaching Excellence Award | 2018 |
| Faculty of Science and Technology, University of Macau, Macao, China | |
| Macau Science and Technology Progress Award <i>Second Prize</i> | 2012 |
| The First Macau Science and Technology Award, Macao, China | |
| SHARED TASKS | |
| Ranked 1st for WMT 2024 Shared Task on Discourse-Level Literary Translation | 2024 |
| The Ninth Conference on Machine Translation (WMT 2024) | |
| Ranked 1st for Quality Estimation on Multilingual/English-Russian Machine Translation | 2022 |
| The Seventh Conference on Machine Translation (WMT 2022) | |
| Ranked 2nd for Quality Estimation on English-German and Chinese-English Machine Translation | 2022 |
| The Seventh Conference on Machine Translation (WMT 2022) | |
| Ranked 1st for Machine Translation – Evaluation Metrics on Chinese-English /Czech-English/German-English/Japanese-English Translation Systems | 2021 |
| The Sixth Conference on Machine Translation (WMT 2021) | |
| Ranked 2nd for Machine Translation – Evaluation Metrics on Hausa-English /Icelandic-English Translation Systems | 2021 |
| The Sixth Conference on Machine Translation (WMT 2021) | |
| Ranked 1st and 2nd for Chinese-English Newswires Translation | 2017 |
| The 13th China Workshop on Machine Translation (CWMT 2017), Dalian, China | |
| Ranked 2nd for Chinese-English/English-Chinese Newswires Translation | 2015 |
| The 11th China Workshop on Machine Translation (CWMT 2015), Anhui, China | |
| Ranked 1st for English-German/Czech-English/French-English Medical Translation | 2014 |
| The 9th Workshop on Machine Translation (WMT 2014), Baltimore, Maryland, USA | |
| Ranked 2nd for German-English/English-Czech/English-French Medical Translation | 2014 |
| The 9th Workshop on Machine Translation (WMT 2014), Baltimore, Maryland, USA | |
| Ranked 3rd for Grammatical Error Correction | 2013 |
| The 7th Conference on Computational Natural Language Learning (CoNLL-2013), Sofia, Bulgaria | |
| Ranked 2nd for Machine Translation – Evaluation Metrics on English to French, German, Spanish, Czech and Russian Translation Systems | 2013 |
| The 8th Workshop on Machine Translation (WMT 2013), Sofia, Bulgaria | |
| Ranked 2nd for Traditional Chinese Parsing | 2012 |
| The 2nd CIPS-SIGHAN Joint Conference on Chinese Language Processing (CLP2012), Tianjin, China | |
| Ranked 2nd for Chinese Personal Name Disambiguation | 2017 |
| The 2nd CIPS-SIGHAN Joint Conference on Chinese Language Processing (CLP2012), Tianjin, China | |
| SUPERVISED PROJECT AWARDS | |
| Macava: A Multimodel LLM-Based Macau Tourism Assistant | 2025 |
| FST Dean List, Faculty Science and Technology, University of Macau | |
| WeSpeak: Web-Based Simultaneous Interpretation System | 2024 |
| FST Dean List, Faculty Science and Technology, University of Macau | |
| iSpeak: A Text-to-Speech System for Cantonese | 2023 |
| FST Dean List, Faculty of Science and Technology, University of Macau | |

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| Yu Sheng: AI Poem Writing | 2022 |
| Champion, IEEE Project Competition, Macao, China | |
| Third Prize, IEEE Industrial Electronics Society (IES) Undergraduate Contest, Macao, China | |
| FST Dean List, Faculty Science and Technology, University of Macau | |
| UMor-PG: The Intelligent Chatbot for Postgraduate Admission Information! | 2022 |
| FST Dean List, Faculty Science and Technology, University of Macau | |
| Candarin: Can You Read Cantonese? Candarin Can Help! | 2021 |
| Third Prize, IEEE Industrial Electronics Society (IES) Undergraduate Contest, Macao, China | |
| Third Prize, IEEE Project Competition, Macao, China | |
| FST Dean List and Best of the Best, Faculty Science and Technology, University of Macau | |
| UMor: A UM Chatbot | 2020 |
| First Prize, The UM Mobile APP Development Competition | |
| Second Prize, IEEE Industrial Electronics Society (IES) Undergraduate Contest, Macao, China | |
| Third Prize, IEEE Project Competition, Macao, China | |
| Third Prize, Pan-Pearl River Delta Region Universities IT Project Competition | |
| FST Dean List, Faculty Science and Technology, University of Macau | |
| iLearner: An Intelligent e-Learning Platform for Teaching & Learning | 2019 |
| FST Dean List, Faculty Science and Technology, University of Macau | |
| Automatic Generation of Test Questions for Language Learning | 2018 |
| FST Dean List, Faculty Science and Technology, University of Macau | |
| UM-iMethod2: Chinese-Portuguese Translation-Oriented Interactive Input Method (IM) System | 2017 |
| FST Dean List, Faculty Science and Technology, University of Macau | |
| iCommuter: Railway Scheduling and Control System with Enhanced Route Management | 2016 |
| FST Dean List and Best of the Best, Faculty Science and Technology, University of Macau | |
| iFinger – Study of Gesture Recognition Technologies & Its Applications | 2014 |
| First Prize, IEEE Project Competition, Macao, China | |
| FST Dean List and Best of the Best, Faculty Science and Technology, University of Macau | |
| iInteract – Study of Eye Tracking Technologies and Its Applications | 2012 |
| First Prize, Amway Pan-Pearl River Delta Region Universities IT Project Competition, Chongqing, China | |
| Creativity Prize, Amway Pan-Pearl River Delta Region Universities IT Project Competition, Chongqing, China | |
| Merit of Tertiary Award, Asia Pacific Information and Communications Technology Awards (APICTA) | |
| Merit Award, Macau Information and Communications Technology Awards (MICTA), Macao, China | |
| First Prize, IEEE Project Competition, Macao, China | |
| FST Dean List, Faculty Science and Technology, University of Macau | |
| CanSpeak – Cantonese Text to Speech System | 2012 |
| Second Prize, IEEE Project Competition, Macao, China | |
| FST Dean List and Best of the Best, Faculty Science and Technology, University of Macau | |
| Cyclops II: Snapshot Mobile Translation System Based on Thin Client-Server Architecture | 2012 |
| FST Dean List, Faculty of Science and Technology, University of Macau | |
| KERST – Cantonese-to-English Real-Time Speech Translation System | 2011 |
| FST Dean List, Faculty of Science and Technology, University of Macau | |
| iTagIt! Automatic Image Annotation System | 2010 |
| First Prize, IEEE Project Competition, Macao, China | |
| Cyclops - Compact OCR Based Pocket Based Snapshot (Chinese) Translation | 2009 |
| Second Prize, Amway Pan-Pearl Delta River Region Universities IT Project Competition, Chongqing, China | |
| First Prize, The 11th Challenge Cup, China | |
| Third Prize, Macau Information and Communications Technology Awards (MICTA), Macao, China | |

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| English to Chinese Machine Translation based on Constraint Synchronous Grammar (CSG) | 2006 |
| Second Prize, Amway Pan-Pearl Delta River Region Universities IT Project Competition, China | |
| Merit, Asia Pacific Information and Communications Technology Awards (APICTA), Macau | |
| Third Prize, Macau Information and Communications Technology Awards (MICTA), Macao, China | |
| Practicability Prize, IEEE Project Competition, Macao, China | |
| Pak Pak Serves You – Application on Interactive Dialogue and Answering (IDQA) System | 2005 |
| Third Prize, The 11th Challenge Cup, China | |
| Second Prize, IEEE Project Competition, Macao, China | |

KEYNOTES/INVITED TALKS

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| From Words to Worlds: The Journey of Language Technologies in Shaping AI | Sep. 2025 |
| The 27th UM Scholar Research Forum, University of Macau, Macau | |
| Multilinguality and Translation in the LLM Era: Encoding, Evaluation, and Detection | Jul. 2025 |
| Alibaba International, China | |
| From Words to Worlds: Groundbreaking Innovation in Machine Translation | Jul. 2025 |
| The 2025 Workshop on Multilinguality in the Age of Large Language Models, University of Macau | |
| Understanding the Cross-Lingual Mechanism of Large Language Models | Nov. 2024 |
| International Conference on Intelligent Multilingual Information Processing 2024 (IMLIP 2024), China | |
| Educating with AI: Dual Pathways in Learning and Teaching | Nov. 2024 |
| University of Macau, Macau | |
| Tradução Automática no Ensino de Chinês e Português | Oct. 2024 |
| The 3rd China and Portuguese Speaking Countries Rectors' Forum, Macau | |
| AI in Education: The Era of LLMs | Oct. 2024 |
| Faculty of Education, University of Macau, Macau | |
| Eliciting Multilingual Alignment in Foundation Language Models | Aug. 2024 |
| The Hong Kong Polytechnic University (PolyU), Hong Kong | |
| Eliciting Non-English Alignment in Foundation Language Models | Jul. 2024 |
| Tianjin University, China | |
| Revisiting the Metrics and Criteria for Machine Translation Evaluation | Nov. 2023 |
| Soochow University, China | |
| Human-in-the-loop Machine Translation with Large Language Models | Nov. 2023 |
| Artificial Intelligence & International Communication Forum, China | |
| Tradução Automática Português-Chinês na Universidade de Macau | Oct. 2023 |
| 1º Fórum Internacional das Línguas Chinesa e Portuguesa | |
| Embracing Human Learning Principles for Effective MT Model Training | Sep. 2023 |
| The 10th Workshop on Patent and Scientific Literature Translation (PSLT 2023) | |
| Is Self-Awareness the Key to Effective Machine Translation Training? | Jul. 2023 |
| Shenzhen Institute of Advanced Technology (SIAT), China | |
| Exploring Criteria, Methodologies, and Strategies in MT Evaluation | Jul. 2023 |
| Tencent AI Lab, China | |
| Difficulty-Aware NMT Model Training & Evaluation Methods | Jun. 2023 |
| INESC-ID, Lisbon | |
| The State of Portuguese-Chinese Machine Translation: Latest Findings from Macau | Jun. 2023 |
| Instituto Superior de Engenharia de Lisboa, Lisboa | |
| What is ChatGPT? Challenges & Opportunities in a New Wave of AI | Mar. 2023 |
| The Economic and Technological Development Bureau of Macau SAR, Macau | |

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| Chat to ChatGPT: Exploring GPT Language Models Center for Data Science of Institute of Collaborative Innovation, University of Macau, Macau | Mar. 2023 |
| What is ChatGPT? A Holistic Review Faculty of Science and Technology, University of Macau, Macau | Feb. 2023 |
| How Does a Machine Translate Human Language? The 4th Macau Young Scientists Conference Seminars and Award Ceremony, Macau | Dec. 2022 |
| Advances in Neural Network Machine Translation and Its Applications The NewTranx Forum: The Fourth Lecture, China | Nov. 2022 |
| Portuguese-Chinese Machine Translation Research Artificial Intelligence & International Communication Forum, China | Sep. 2022 |
| Word or Attributes: Learning Better Bilingual Word Embeddings for NMT First Symposium on Frontiers of Science and Technology, University of Macau | May. 2022 |
| Neural Machine Translation Model Training & Evaluation Methods Beihang University, China | Dec. 2021 |
| Difficulty-Aware NMT Model Training & Evaluation Methods The 2021 International Conference on Big Data and Machine Intelligence: Models, Algorithms and Applications (ICBM), China | Nov. 2021 |
| A Cognitive Perspective for Understanding NMT Training and Evaluation The Alibaba Apsara Conference 2021, China | Oct. 2021 |
| Probing the Learning of an NMT Model and Its Training Strategy NiuTrans Forum: The First Online Machine Translation Forum | Jul. 2020 |
| Will AI Replace Human Translators? TEDx Senado Square 2020 | Aug. 2020 |
| Enhancing Neural MT via Linguistic Information The iFLYTEK 1024 Global Developer Fest, China | Oct. 2019 |
| Deep Learning for Portuguese-Chinese Machine Translation Coimbra University, Portugal | Jun. 2019 |
| Intelligent Translation Technologies: Building Multilingual Translation Ecosystem Fábrica de Startup Rio, Rio de Janeiro, Brazil | May. 2019 |
| Linguistic Inspired Machine Translation Model Huawei Noah Ark Lab, Hong Kong | Apr. 2019 |
| The Research of Portuguese-Chinese Machine Translation Based on Deep Learning Tsinghua University, China | Apr. 2019 |
| Recent MT Research in UM: An Application to Portuguese-Chinese Translation University of Macau | Feb. 2019 |
| Enhancing NMT via Linguistic Information ADAPT Centre, Dublin City University, Ireland | Sep. 2018 |
| Bidirectional Hierarchical Representations for Attention-Based Neural Machine Translation Soochow University, China | Oct. 2017 |
| Chinese-Portuguese MT: Toward Better Chinese Word Segmentation for Statistical Machine Translation via Graph Knowledge Constraints The 16th China-Japan Natural Language Processing Joint Promotion Conference (CJNLP 2016), China | Sep. 2016 |

RESEARCH FUNDS

| | |
|--|---|
| Research and Development of Large Language Models for Intelligent Service Platforms in Information Security Macao Funding Scheme for Key R&D Projects, FDCT | <i>PI of Sub-Project</i> Jan. 2025 – Dec. 2027 (FDCT/0007/2024/AKP) |
| Effective Data Selection and Training Strategies for LLM Instruction Tuning Multi-Year Research Grant (MYRG) of the University of Macau | <i>PI</i> Jan. 2025 – Dec. 2026 (MYRG-GRG2024-00165-FST) |
| Research on Chinese Oriented Low-Resource Machine Translation Technologies Joint Project of NSFC and FDCT | <i>PI</i> Jan. 2023 – Jan. 2026 (FDCT/060/2022/AFJ) |
| Modularized Semantic Neural Machine Translation: Fundamentals & Application Joint Project of MOST and FDCT | <i>PI</i> Dec. 2022 – Dec. 2025 (FDCT/070/2022/AMJ) |
| Pretraining-based Automatic Evaluation of Machine Translation Multi-Year Research Grant (MYRG) of the University of Macau | <i>PI</i> Jan. 2024 – Dec. 2026 (MYRG-GRG2023-00006-FST-UMDF) |
| Large Language Models for Machine Translation with Enhanced Discourse Modeling Tencent AI Lab Rhino-Bird | <i>PI</i> Jul. 2023 – Jun. 2024 (EF2023-00151-FST) |
| Research of Non-Autoregressive Neural Machine Translation Multi-Year Research Grant (MYRG) of the University of Macau | <i>PI</i> Jan. 2021 – Dec. 2023 (MYRG2020-00054-FST) |
| Guiding Self-Attention Based Neural Machine Translation with Linguistic Prior Knowledge The Science and Technology Development Fund (FDCT) of Macao | <i>PI</i> Sep. 2019 – Aug. 2022 (0101/2019/A2) |
| Research of Chinese-Portuguese Machine Translation Based on Deep Learning Joint Project of NSFC and FDCT | <i>PI</i> Jan. 2018 – Dec. 2020 (FDCT/045/2017/AFJ) |
| Research on Domain Adaptation for Low-Resource Chinese-Portuguese MT in Big Data Era: Methodology and Its Implementation National Natural Science Foundation of China (NSFC) | <i>PI</i> Jan. 2017 – Dec. 2020 (61702203) |
| Morpho-Syntactic Modeling for Chinese-Portuguese Statistical Machine Translation (SMT) Multi-Year Research Grant (MYRG) of the University of Macau | <i>PI</i> Jan. 2018 – Dec. 2020 (MYRG2017-00087-FST) |
| Research on Linguistic Prediction Model with Graph-based Semi-Supervised Learning Multi-Year Research Grant (MYRG) of the University of Macau | <i>PI</i> May 2015 – Apr. 2018 (MYRG2015-00188-FST) |
| Heterogeneous Domain Adaptation Model for SMT The Science and Technology Development Fund (FDCT) of Macao | <i>PI</i> Jan. 2015 – Jan. 2017 (057/2014/A) |
| Domain Adaptation in Statistical Machine Translation Based on Graph Propagation Multi-Year Research Grant (MYRG) of the University of Macau | <i>PI</i> Apr. 2015 – Mar. 2018 (MYRG2015-00175-FST) |
| Construction of Portuguese-Chinese Parallel Treebank (PCTreeBank) Based on Unsupervised Learning Approach Multi-Year Research Grant (MYRG) of the University of Macau | <i>PI</i> May 2013 – Apr. 2016 (MYRG076(Y1-L2)-FST13-WF) |
| Computational Psycholinguistic Models of Second Language Processing and Production Multi-Year Research Grant (MYRG) of the University of Macau | <i>Co-PI</i> May 2013 – Apr. 2016 (MYRG064(Y1-L2)-FSH13-CCM) |

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| Blind Biosignal Classification (B2SC) Framework Co-PI for a Multi-Function Health Alert Device Multi-Year Research Grant (MYRG) of the University of Macau | Jun. 2012 – May 2015 (MYRG070(Y1-L2)-FST12-CS) |
| AuTema-Post-Editing (AuTema-PostEd) Co-PI for Chinese/Portuguese Multi-Year Research Grant (MYRG) of the University of Macau | Jun. 2012 – May 2015 (MYRG058(Y1-L2)-FSH12-ALL) |
| Autema – SynTree – Annotation and Analysis of Bilingual Syntactic Trees for Chinese/Portuguese Multi-Year Research Grant (MYRG) of the University of Macau | Jun. 2011 – May 2014 (MYRG102(Y1-L2)-FSH11-ALL) |
| Syntax modeling & parsing for Portuguese-Chinese Machine Translation and Establishment of Macau Key Research Laboratory in NLP & MT (NLPMT) The Science and Technology Development Fund (FDCT) of Macao | May 2010 – Apr. 2013 (057/2009/A2) |
| Grammatical Inference for Analyzing the Second Language Acquisition of Spoken Portuguese Multi-Year Research Grant (MYRG) of the University of Macau | Mar. 2010 – Mar. 2012 (RG060/09-10S/11R/CS/FST) |
| AuTema-Dis II Co-PI Multi-Year Research Grant (MYRG) of the University of Macau | Mar. 2010 – Feb. 2011 (RG035/09-10S/ALL/FSH) |
| Data Mining Model in Analyzing the Acquisition of Portuguese Knowledge for Macau Students Multi-Year Research Grant (MYRG) of the University of Macau | Mar. 2009 – Feb. 2010 (RG054/08-09S/CS/FST) |
| R&D of Knowledge-based Machine-Aided Bi-Directional Paragraph Translation in Portuguese-Chinese and English-Chinese The Science and Technology Development Fund (FDCT) of Macao | Sep. 2006 – Aug. 2009 (041/2005/A) |

CONSULTANCY PROJECTS

| | |
|--|-----------------------|
| Unicode Encoding of Macao Supplementary Character Set PI Public Administration and Civil Service Bureau (SAFP) of Macao SAR | Sep. 2021 – present |
| Interactive Question-Answering System Based on Large Models PI Pachira Information Technology (Hengqin) Co., Ltd. | Jul. 2022 – Dec. 2022 |
| All-in-One System (AiO) Consultancy & Development Service PI Macao Government Tourist Office (MGTO) of Macao SAR | Jan. 2011 – Jun. 2018 |
| License Management System (LMS) Consultancy & Development Service PI Macao Government Tourist Office (MGTO) of Macao SAR | Jun. 2007 – May. 2018 |
| PO Box Automation System PI Macao Post Office of Macao SAR | Sep. 1997 – May. 2002 |

SELECTED PROFESSIONAL SERVICES

COMMUNITY AND ORGANIZATIONS

| | |
|--|----------------|
| NLPCC Technical Committee Member China Computer Federation (CCF) | 2023 – present |
| Machine Translation Steering Committee Member Chinese Information Processing Society of China (CIPS) | 2019 – present |
| Board of Director Member Chinese Information Processing Society of China (CIPS) | 2012 – present |

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| Executive Committee Members <i>Member-at-Large</i> Asian Federation of Natural Language (AFNLP) | 2019 – present |
| Board of Directors <i>Vice President</i> Macau Greater Bay Area Artificial Intelligence Institute | 2019 – present |
| IEEE Engineering in Medicine and Biology Society (EMBS) <i>Chair</i> Hong Kong – Macau Joint Chapter | 2015 – 2016 |
| Board of Directors <i>President</i> Macau Web Intelligence Consortium (WIC) Association | 2012 – present |
| Board of Supervisors <i>Vice President</i> Macau Society of Biomedical Engineering (MSBME) | 2010 – present |

JOURNAL EDITORS & REVIEWERS

| | |
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| Action Editor Transactions of the Association for Computational Linguistics (TACL), ACL | 2023 – present |
| Associate Editor Transactions on Audio, Speech and Language Processing (TASLP), IEEE/ACM | 2022 – present |
| Associate Editor Transactions on Asian and Low-Resource Language Information Processing (TALLIP), ACM | 2022 – present |
| Action Editor ACL Rolling Review (ARR), ACL | 2022 – present |
| Editorial Board Member Natural Language Processing, Elsevier | 2022 – present |
| Editorial Board Member Machine Translation Journal, Springer | 2019 – 2022 |
| Reviewers ACL Rolling Review (ARR), Computational Linguistics (CL), Transactions of the Association for Computational Linguistics (TACL), ACM Transactions on Asian and Low-Resource Language Information Processing (TALLIP), IEEE/ACM Transactions on Audio, Speech, and Language Processing (TASLP), Neurocomputing, Journal of Artificial Intelligence Research (JAIR) | 2015 – present |

CONFERENCE ORGANIZATIONS

| | |
|---|-------------|
| Organizer and Steering Committee Member COLING (2027), NLPCC (2026), IEEE SLT (2024), MT Summit (2023), IJCAI (2019), CWMT (2014), O-COCOSDA (2012) | 2012 – 2024 |
| Program Co-Chair IJCNLP-AAACL (2025), NLPCC (2024), IEEE SLT (2024), CWMT (2017), O-COCOSDA (2012) | 2012 – 2025 |
| Senior/Area Co-Chair NAACL (2024), EACL (2024), COLING (2024), EMNLP (2020), CCL (2016, 2019, 2021), NLPCC (2018 – 2019, 2021) | 2016 – 2024 |
| Demo Co-Chair AAACL-IJCNLP (2020), EMNLP (2019) | 2019 – 2020 |
| Publication Co-Chair COLING (2020), IJCNLP (2017) | 2017 – 2020 |
| Local Organization Committee EMNLP-IJCNLP (2019), IJCAI (2019), CWMT (2014) | 2014 – 2019 |

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| Sponsorship Co-Chair NLPCC (2020), WAIM (2014) | 2014 – 2020 |
| Student Research Workshop Co-Chair IJCNLP-AAACL (2023), ACL-IJCNLP (2021) | 2021 – 2023 |
| Senior PC Member EMNLP (2025), ECAI (2024), IJCAI (2020) | 2020 – 2024 |
| PC Member ICLR, ICML, NeurIPS, AAAI, IJCAI, ACL, EMNLP, NAACL-HLT, EAACL, MT Summit, COLING, CCL, NLPCC, CCMT | 2014 – now |

SERVICES TO MACAU SOCIETY

| | |
|--|-------------|
| Talent Program 2016 Co-PI The Science and Technology Development Fund (FDCT) of Macao | 2016 |
| Centre for Science & Engineering Promotion – Open Laboratory Co-PI The Science and Technology Development Fund (FDCT) of Macao | 2016 |
| Computer Science Exploration Camp PI The Science and Technology Development Fund (FDCT) of Macao | 2009 – 2013 |

SELECTED PUBLICATIONS

JOURNAL ARTICLES

- [1] Junchao Wu, Shu Yang, Runzhe Zhan, Yulin Yuan, **Derek F. Wong**, and Lidia S. Chao. “A Survey on LLM-Generated Text Detection: Necessity, Methods, and Future Directions”. In: *Computational Linguistics* (2025), pp. 1–65.
- [2] Jianhui Pang, Fanghua Ye, Derek Fai Wong, Dian Yu, Shuming Shi, Zhaopeng Tu, and Longyue Wang. “Salute the classic: Revisiting challenges of machine translation in the age of large language models”. In: *Transactions of the Association for Computational Linguistics* 13 (2025), pp. 73–95.
- [3] Mu You, Jing Zhang, **Derek F. Wong**, and Kaixin Lan. “UMPLC: The First Longitudinal Learner Corpus of Portuguese”. In: *Lang. Resour. Evaluation* (2025), pp. 1–20.
- [4] Jianhui Pang, Baosong Yang*, **Derek Fai Wong**, Yu Wan, Dayiheng Liu, Lidia Sam Chao, and Jun Xie. “Rethinking the Exploitation of Monolingual Data for Low-Resource Neural Machine Translation”. In: *Computational Linguistics* 50.1 (2024), pp. 25–47.
- [5] Guanhua Chen, Runzhe Zhan, **Derek F. Wong**, and Lidia S. Chao. “Dynamic curriculum learning for conversation response selection”. In: *Knowl. Based Syst.* 293 (2024), p. 111687.
- [6] Guanhua Chen, Runzhe Zhan, **Derek F. Wong**, and Lidia S. Chao. “Multi-Level Curriculum Learning for Multi-Turn Dialogue Generation”. In: *IEEE ACM Trans. Audio Speech Lang. Process.* 31 (2023), pp. 3958–3967.
- [7] Mingzhou Xu, Longyue Wang, Siyou Liu, **Derek F. Wong**, Shuming Shi, and Zhaopeng Tu. “A benchmark dataset and evaluation methodology for Chinese zero pronoun translation”. In: *Lang. Resour. Evaluation* 57.3 (2023), pp. 1263–1293.
- [8] Cuilian Zhang, **Derek F. Wong**, Eddy S. K. Lei, Runzhe Zhan, and Lidia S. Chao. “Obscurity-Quantified Curriculum Learning for Machine Translation Evaluation”. In: *IEEE ACM Trans. Audio Speech Lang. Process.* 31 (2023), pp. 2259–2271.
- [9] Rong Xiao, Yu Wan, Baosong Yang, Haibo Zhang, Huajin Tang, **Derek F. Wong**, and Boxing Chen. “Towards Energy-Preserving Natural Language Understanding With Spiking Neural Networks”. In: *IEEE ACM Trans. Audio Speech Lang. Process.* 31 (2022), pp. 439–447.

- [10] Yu Wan, Baosong Yang, **Derek F. Wong**, Lidia Sam Chao, Liang Yao, Haibo Zhang, and Boxing Chen. “Challenges of Neural Machine Translation for Short Texts”. In: *Computational Linguistics* (Mar. 2022), pp. 1–21.
- [11] Mingzhou Xu, Baosong Yang, **Derek F. Wong**, and Lidia S. Chao. “Multi-view self-attention networks”. In: *Knowl. Based Syst.* 241 (2022), p. 108268.
- [12] Chongman Leong, Xuebo Liu, **Derek F. Wong**, and Lidia S. Chao. “Exploiting Translation Model for Parallel Corpus Mining”. In: *IEEE ACM Trans. Audio Speech Lang. Process.* 27.12 (2021), pp. 2103–2112.
- [13] Baosong Yang, Longyue Wang, **Derek F. Wong**, Shuming Shi, and Zhaopeng Tu. “Context-aware Self-Attention Networks for Natural Language Processing”. In: *Neurocomputing* 458 (2021), pp. 157–169.
- [14] Yujia Huo, **Derek F. Wong**, Lionel M Ni, Lidia S. Chao, Jing Zhang, and Xin Zuo. “Learning cognitive embedding using signed knowledge interaction graph”. In: *Knowl. Based Syst.* (2021), p. 107327.
- [15] Yujia Huo, **Derek F. Wong**, Lionel M. Ni, Lidia S. Chao, and Jing Zhang. “Knowledge modeling via contextualized representations for LSTM-based personalized exercise recommendation”. In: *Inf. Sci.* 523 (2020), pp. 266–278.
- [16] Baosong Yang, **Derek F. Wong**, Lidia S. Chao, and Min Zhang. “Improving tree-based neural machine translation with dynamic lexicalized dependency encoding”. In: *Knowl. Based Syst.* 188 (2020).
- [17] Yujia Huo, **Derek F. Wong**, Lionel M. Ni, Lidia S. Chao, and Jing Zhang. “HeTROPY: Explainable learning diagnostics via heterogeneous maximum-entropy and multi-spatial knowledge representation”. In: *Knowl. Based Syst.* 207 (2020), p. 106389.
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TEACHING AND SUPERVISION

TEACHING

Graduate Courses

| | |
|-------------------------------------|----------------------|
| Applied Natural Language Processing | Fall, 2016 – present |
| Data Science and Data Visualization | Fall, 2019 – 2021 |
| Machine Translation | Spring, 2012 – 2015 |
| University Teaching II | Fall, 2016 |
| University Teaching I | Spring, 2015 |

Undergraduate Courses

| | |
|---|------------------------|
| Natural Language Processing | Spring, 2018 – present |
| Introduction to Database Systems | Fall, 2018 |
| Introduction to Natural Language Processing | Fall, 2012 – 2017 |
| Computer Organization | Fall, 2018 |
| Compiler Construction | Fall, 2009 – 2017 |

STUDENTS

Current Students

| | |
|---|--|
| Wang Songsheng, PhD, <i>since 2020</i> | Pang Jianhui, PhD, <i>since 2020</i> |
| Zhan Runzhe, PhD, <i>since 2021</i> | Wang Shanshan, PhD, <i>since 2022</i> |
| Liu Shudong, PhD, <i>since 2022</i> | Ma Xinyu, PhD, <i>since 2022</i> |
| Li Renhao, PhD, <i>since 2023</i> | Zhang Pei, PhD, <i>since 2023</i> |
| Li Zhaocong, PhD, <i>since 2023</i> | Sun Yanming, PhD, <i>since 2023</i> |
| Chen Guanhua, PhD, <i>since 2023</i> | Lan Kaixin, PhD, <i>since 2024</i> |
| Huang Zhihong, PhD, <i>since 2024</i> | Yao Yutong, PhD, <i>since 2024</i> |
| Wu Junchao, PhD, <i>since 2024</i> | Ma Jing Kun, Andrew, Master, <i>since 2022</i> |
| Xinyi Yang, Master, <i>since 2022</i> | Wang Xinhao, Master, <i>since 2023</i> |
| Zhang Shijie, Master, <i>since 2023</i> | |

Former Students

Fang Tao, PhD, 2020 – 2024
Wan Yu, PhD, 2018 – 2023
Huo Yujia, PhD, 2017 – 2020
Lan Kaixin, Master, 2021 – 2024
Li Yitong, Master, 2021 – 2024
Cheung Wing Lam, Master, 2021 – 2024
Liu Jie, Master, 2021 – 2023
Yang Yu, Master, 2021 – 2023
Cheang Chi Seng, Master, 2018 – 2023
Sun Yanming, Master, 2020 – 2023
Huang Zhihong, Master, 2020 – 2023
Wong Song Man, Master, 2019 – 2022
Cheng YiXun, Master, 2019 – 2022
Wang Shanshan, Master, 2019 – 2022
Chan Chou Weng, Raphael, Master, 2019 – 2021
Leong Chongman, Master, 2015 – 2021
Zhou Yikai, Master, 2016 – 2020
Li Zhen, Master, 2017 – 2019
Ao Chi Hong, Master, 2014 – 2017
Lu Yi, Master, 2012 – 2016
He Liangye, Master, 2010 – 2015
Zong Hao, Master, 2011 – 2014
Huang Qiuping, Master, 2011 – 2014
Xing Junwen, Master, 2011 – 2014
Fong Pui Chi, Master, 2006 – 2013
Hong Iok Sai, Master, 2006 – 2013
Anna Ho, Master, 2003 – 2008
Tang Chi Wai, Master, 2001 – 2007

Xu Mingzhou, PhD, 2017 – 2023
Liu Xuebo, PhD, 2017 – 2021
Yang Baosong, PhD, 2016 – 2019
Wu Junchao, Master, 2022 – 2024
Ku Su Wa, Master, 2021 – 2024
Xu Tianjiao, Master, 2020 – 2023
Si Pui Lam, Master, 2019 – 2023
Du Zefeng, Master, 2020 – 2023
Song Wai Lei, Master, 2019 – 2023
Li Zhaocong, Master, 2020 – 2023
Wan Zhoujiaqi, Master, 2021 – 2023
Loi Wai Leong, Lewis, Master, 2020 – 2022
Chen Guanhua, Master, 2020 – 2022
Tsm U Hoi, Ocean, Master, 2019 – 2021
Du Haihua, Master, 2017 – 2021
Huang Shuyan, Master, 2018 – 2021
Li Ying, Master, 2016 – 2020
Chen Rui, Master, 2016 – 2018
Wang Yiming, Master, 2012 – 2016
Tong Yu, Master, 2013 – 2016
Zhu Ling, Master, 2010 – 2014
Han Lifeng, Master, 2011 – 2014
Wang Longyue, Master, 2011 – 2014
Li Shuo, Master, 2010 – 2013
Tian Liang, Master, 2010 – 2013
Zeng Xiaodong, Master, 2009 – 2012
Leong Ka Seng, Master, 2005 – 2008
Francisco de Oliveira, Master, 2003 – 2006

Visiting Students

Qiang Li, PhD, Northeastern University, 2017 – 2018
Huadong Chen, PhD, Nanjing University, 2018