



# DEREK F. WONG

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## EDUCATION

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

## ACADEMIC EXPERIENCE

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

## HONORS AND AWARDS

<b>University-level Teaching Excellence Award</b> University of Macau, Macao, China	2024
<b>FST Teaching Excellence Award</b> Faculty of Science and Technology, University of Macau, Macao, China	2024
<b>Technological Invention Award</b>   <i>Second Prize</i> The fifth Macau Science and Technology Award, Macao, China	2022
<b>Research Excellence Award</b> Faculty of Science and Technology, University of Macau, Macao, China	2022
<b>Incentive Scheme for Outstanding Academic Staff</b> University of Macau Development Foundation (UMDF), University of Macau, Macao, China	2022
<b>Teaching Excellence Award</b> Faculty of Science and Technology, University of Macau, Macao, China	2018
<b>Macau Science and Technology Progress Award</b>   <i>Second Prize</i> The First Macau Science and Technology Award, Macao, China	2012

## SHARED TASKS

<b>Ranked 1st for Quality Estimation on Multilingual/English-Russian Machine Translation</b> The Seventh Conference on Machine Translation (WMT 2022)	2022
<b>Ranked 2nd for Quality Estimation on English-German and Chinese-English Machine Translation</b> The Seventh Conference on Machine Translation (WMT 2022)	2022
<b>Ranked 1st for Machine Translation – Evaluation Metrics on Chinese-English /Czech-English/German-English/Japanese-English Translation Systems</b> The Sixth Conference on Machine Translation (WMT 2021)	2021
<b>Ranked 2nd for Machine Translation – Evaluation Metrics on Hausa-English /Icelandic-English Translation Systems</b> The Sixth Conference on Machine Translation (WMT 2021)	2021
<b>Ranked 1st and 2nd for Chinese-English Newswires Translation</b> The 13th China Workshop on Machine Translation (CWMT 2017), Dalian, China	2017
<b>Ranked 2nd for Chinese-English/English-Chinese Newswires Translation</b> The 11th China Workshop on Machine Translation (CWMT 2015), Anhui, China	2015
<b>Ranked 1st for English-German/Czech-English/French-English Medical Translation</b> The 9th Workshop on Machine Translation (WMT 2014), Baltimore, Maryland, USA	2014
<b>Ranked 2nd for German-English/English-Czech/English-French Medical Translation</b> The 9th Workshop on Machine Translation (WMT 2014), Baltimore, Maryland, USA	2014
<b>Ranked 3rd for Grammatical Error Correction</b> The 7th Conference on Computational Natural Language Learning (CoNLL-2013), Sofia, Bulgaria	2013
<b>Ranked 2nd for Machine Translation – Evaluation Metrics on English to French, German, Spanish, Czech and Russian Translation Systems</b> The 8th Workshop on Machine Translation (WMT 2013), Sofia, Bulgaria	2013
<b>Ranked 2nd for Traditional Chinese Parsing</b> The 2nd CIPS-SIGHAN Joint Conference on Chinese Language Processing (CLP2012), Tianjin, China	2012
<b>Ranked 2nd for Chinese Personal Name Disambiguation</b> The 2nd CIPS-SIGHAN Joint Conference on Chinese Language Processing (CLP2012), Tianjin, China	2017

## SUPERVISED PROJECT AWARDS

<b>WeSpeak: Web-Based Simultaneous Interpretation System</b> FST Dean List, Faculty Science and Technology, University of Macau	2024
<b>iSpeak: A Text-to-Speech System for Cantonese</b> FST Dean List, Faculty of Science and Technology, University of Macau	2023
<b>Yu Sheng: AI Poem Writing</b> 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	2022
<b>UMor-PG: The Intelligent Chatbot for Postgraduate Admission Information!</b> FST Dean List, Faculty Science and Technology, University of Macau	2022
<b>Candarín: Can You Read Cantonese? Candarin Can Help!</b> 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	2021

<b>UMor: A UM Chatbot</b>	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	
<b>iLearner: An Intelligent e-Learning Platform for Teaching &amp; Learning</b>	2019
FST Dean List, Faculty Science and Technology, University of Macau	
<b>Automatic Generation of Test Questions for Language Learning</b>	2018
FST Dean List, Faculty Science and Technology, University of Macau	
<b>UM-iMethod2: Chinese-Portuguese Translation-Oriented Interactive Input Method (IM) System</b>	2017
FST Dean List, Faculty Science and Technology, University of Macau	
<b>iCommuter: Railway Scheduling and Control System with Enhanced Route Management</b>	2016
FST Dean List and Best of the Best, Faculty Science and Technology, University of Macau	
<b>iFinger – Study of Gesture Recognition Technologies &amp; Its Applications</b>	2014
First Prize, IEEE Project Competition, Macao, China	
FST Dean List and Best of the Best, Faculty Science and Technology, University of Macau	
<b>iInteract – Study of Eye Tracking Technologies and Its Applications</b>	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	
<b>CanSpeak – Cantonese Text to Speech System</b>	2012
Second Prize, IEEE Project Competition, Macao, China	
FST Dean List and Best of the Best, Faculty Science and Technology, University of Macau	
<b>Cyclops II: Snapshot Mobile Translation System Based on Thin Client-Server Architecture</b>	2012
FST Dean List, Faculty of Science and Technology, University of Macau	
<b>KERST – Cantonese-to-English Real-Time Speech Translation System</b>	2011
FST Dean List, Faculty of Science and Technology, University of Macau	
<b>iTagIt! Automatic Image Annotation System</b>	2010
First Prize, IEEE Project Competition, Macao, China	
<b>Cyclops - Compact OCR Based Pocket Based Snapshot (Chinese) Translation</b>	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	
<b>English to Chinese Machine Translation based on Constraint Synchronous Grammar (CSG)</b>	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	
<b>Pak Pak Serves You – Application on Interactive Dialogue and Answering (IDQA) System</b>	2005
Third Prize, The 11th Challenge Cup, China	
Second Prize, IEEE Project Competition, Macao, China	

## KEYNOTES/INVITED TALKS

<b>Eliciting Multilingual Alignment in Foundation Language Models</b> The Hong Kong Polytechnic University (PolyU), Hong Kong	Aug. 2024
<b>Eliciting Non-English Alignment in Foundation Language Models</b> Tianjin University, China	Jul. 2024
<b>Revisiting the Metrics and Criteria for Machine Translation Evaluation</b> Soochow University, China	Nov. 2023
<b>Human-in-the-loop Machine Translation with Large Language Models</b> Artificial Intelligence & International Communication Forum, China	Nov. 2023
<b>Tradução Automática Português-Chinês na Universidade de Macau</b> 1º Fórum Internacional das Línguas Chinesa e Portuguesa	Oct. 2023
<b>Embracing Human Learning Principles for Effective MT Model Training</b> The 10th Workshop on Patent and Scientific Literature Translation (PSLT 2023)	Sep. 2023
<b>Is Self-Awareness the Key to Effective Machine Translation Training?</b> Shenzhen Institute of Advanced Technology (SIAT), China	Jul. 2023
<b>Exploring Criteria, Methodologies, and Strategies in MT Evaluation</b> Tencent AI Lab, China	Jul. 2023
<b>Difficulty-Aware NMT Model Training &amp; Evaluation Methods</b> INESC-ID, Lisbon	Jun. 2023
<b>The State of Portuguese-Chinese Machine Translation: Latest Findings from Macau</b> Instituto Superior de Engenharia de Lisboa, Lisboa	Jun. 2023
<b>What is ChatGPT? Challenges &amp; Opportunities in a New Wave of AI</b> The Economic and Technological Development Bureau of Macau SAR, Macau	Mar. 2023
<b>Chat to ChatGPT: Exploring GPT Language Models</b> Center for Data Science of Institute of Collaborative Innovation, University of Macau, Macau	Mar. 2023
<b>What is ChatGPT? A Holistic Review</b> Faculty of Science and Technology, University of Macau, Macau	Feb. 2023
<b>How Does a Machine Translate Human Language?</b> The 4th Macau Young Scientists Conference Seminars and Award Ceremony, Macau	Dec. 2022
<b>Advances in Neural Network Machine Translation and Its Applications</b> The NewTranx Forum: The Fourth Lecture, China	Nov. 2022
<b>Portuguese-Chinese Machine Translation Research</b> Artificial Intelligence & International Communication Forum, China	Sep. 2022
<b>Word or Attributes: Learning Better Bilingual Word Embeddings for NMT</b> First Symposium on Frontiers of Science and Technology, University of Macau	May. 2022
<b>Neural Machine Translation Model Training &amp; Evaluation Methods</b> Beihang University, China	Dec. 2021
<b>Difficulty-Aware NMT Model Training &amp; Evaluation Methods</b> The 2021 International Conference on Big Data and Machine Intelligence: Models, Algorithms and Applications (ICBM), China	Nov. 2021
<b>A Cognitive Perspective for Understanding NMT Training and Evaluation</b> The Alibaba Apsara Conference 2021, China	Oct. 2021
<b>Probing the Learning of an NMT Model and Its Training Strategy</b> NiuTrans Forum: The First Online Machine Translation Forum	Jul. 2020

<b>Will AI Replace Human Translators?</b> TEDx Senado Square 2020	Aug. 2020
<b>Enhancing Neural MT via Linguistic Information</b> The iFLYTEK 1024 Global Developer Fest, China	Oct. 2019
<b>Deep Learning for Portuguese-Chinese Machine Translation</b> Coimbra University, Portugal	Jun. 2019
<b>Intelligent Translation Technologies: Building Multilingual Translation Ecosystem</b> Fábrica de Startup Rio, Rio de Janeiro, Brazil	May. 2019
<b>Linguistic Inspired Machine Translation Model</b> Huawei Noah Ark Lab, Hong Kong	Apr. 2019
<b>The Research of Portuguese-Chinese Machine Translation Based on Deep Learning</b> Tsinghua University, China	Apr. 2019
<b>Recent MT Research in UM: An Application to Portuguese-Chinese Translation</b> University of Macau	Feb. 2019
<b>Enhancing NMT via Linguistic Information</b> ADAPT Centre, Dublin City University, Ireland	Sep. 2018
<b>Bidirectional Hierarchical Representations for Attention-Based Neural Machine Translation</b> Soochow University, China	Oct. 2017
<b>Chinese-Portuguese MT: Toward Better Chinese Word Segmentation for Statistical Machine Translation via Graph Knowledge Constraints</b> The 16th China-Japan Natural Language Processing Joint Promotion Conference (CJNLP 2016), China	Sep. 2016

## RESEARCH FUNDS

<b>Research on Chinese Oriented Low-Resource Machine Translation   PI</b> Technologies Joint Project of NSFC and FDCT	Jan. 2023 – Jan. 2026 (FDCT/060/2022/AFJ)
<b>Modularized Semantic Neural Machine Translation:   PI</b> Fundamentals & Application Joint Project of MOST and FDCT	Dec. 2022 – Dec. 2025 (FDCT/070/2022/AMJ)
<b>Pretraining-based Automatic Evaluation of Machine Translation   PI</b> Multi-Year Research Grant (MYRG) of the University of Macau	Jan. 2024 – Dec. 2026 (MYRG-GRG2023-00006-FST-UMDF)
<b>Large Language Models for Machine Translation with   PI</b> Enhanced Discourse Modeling Tencent AI Lab Rhino-Bird	Jul. 2023 – Jun. 2024 (EF2023-00151-FST)
<b>Research of Non-Autoregressive Neural Machine Translation   PI</b> Multi-Year Research Grant (MYRG) of the University of Macau	Jan. 2021 – Dec. 2023 (MYRG2020-00054-FST)
<b>Guiding Self-Attention Based Neural Machine Translation   PI</b> with Linguistic Prior Knowledge The Science and Technology Development Fund (FDCT) of Macao	Sep. 2019 – Aug. 2022 (0101/2019/A2)
<b>Research of Chinese-Portuguese Machine Translation Based on   Co-PI</b> Deep Learning Joint Project of NSFC and FDCT	Jan. 2018 – Dec. 2020 (FDCT/045/2017/AFJ)
<b>Research on Domain Adaptation for Low-Resource Chinese-Portuguese   PI</b> MT in Big Data Era: Methodology and Its Implementation National Natural Science Foundation of China (NSFC)	Jan. 2017 – Dec. 2020 (61702203)
<b>Morpho-Syntactic Modeling for Chinese-Portuguese Statistical   PI</b>	Jan. 2018 – Dec. 2020

<b>Machine Translation (SMT)</b> Multi-Year Research Grant (MYRG) of the University of Macau	(MYRG2017-00087-FST)
<b>Research on Linguistic Prediction Model with Graph-based Semi-Supervised Learning</b> Multi-Year Research Grant (MYRG) of the University of Macau	May 2015 – Apr. 2018 (MYRG2015-00188-FST)
<b>Heterogeneous Domain Adaptation Model for SMT</b>   <i>PI</i> The Science and Technology Development Fund (FDCT) of Macao	Jan. 2015 – Jan. 2017 (057/2014/A)
<b>Domain Adaptation in Statistical Machine Translation Based on Graph Propagation</b>   <i>PI</i> Multi-Year Research Grant (MYRG) of the University of Macau	Apr. 2015 – Mar. 2018 (MYRG2015-00175-FST)
<b>Construction of Portuguese-Chinese Parallel Treebank (PCTreeBank) Based on Unsupervised Learning Approach</b>   <i>PI</i> Multi-Year Research Grant (MYRG) of the University of Macau	May 2013 – Apr. 2016 (MYRG076(Y1-L2)-FST13-WF)
<b>Computational Psycholinguistic Models of Second Language Processing and Production</b>   <i>Co-PI</i> Multi-Year Research Grant (MYRG) of the University of Macau	May 2013 – Apr. 2016 (MYRG064(Y1-L2)-FSH13-CCM)
<b>Blind Biosignal Classification (B2SC) Framework for a Multi-Function Health Alert Device</b>   <i>Co-PI</i> Multi-Year Research Grant (MYRG) of the University of Macau	Jun. 2012 – May 2015 (MYRG070(Y1-L2)-FST12-CS)
<b>AuTema-Post-Editing (AuTema-PostEd) for Chinese/Portuguese</b>   <i>Co-PI</i> Multi-Year Research Grant (MYRG) of the University of Macau	Jun. 2012 – May 2015 (MYRG058(Y1-L2)-FSH12-ALL)
<b>Autema – SynTree – Annotation and Analysis of Bilingual Syntactic Trees for Chinese/Portuguese</b>   <i>Co-PI</i> Multi-Year Research Grant (MYRG) of the University of Macau	Jun. 2011 – May 2014 (MYRG102(Y1-L2)-FSH11-ALL)
<b>Syntax modeling &amp; parsing for Portuguese-Chinese Machine Translation and Establishment of Macau Key Research Laboratory in NLP &amp; MT (NLPMT)</b> The Science and Technology Development Fund (FDCT) of Macao	May 2010 – Apr. 2013 (057/2009/A2)
<b>Grammatical Inference for Analyzing the Second Language Acquisition of Spoken Portuguese</b>   <i>Co-PI</i> Multi-Year Research Grant (MYRG) of the University of Macau	Mar. 2010 – Mar. 2012 (RG060/09-10S/11R/CS/FST)
<b>AuTema-Dis II</b>   <i>Co-PI</i> Multi-Year Research Grant (MYRG) of the University of Macau	Mar. 2010 – Feb. 2011 (RG035/09-10S/ALL/FSH)
<b>Data Mining Model in Analyzing the Acquisition of Portuguese Knowledge for Macau Students</b>   <i>Co-PI</i> Multi-Year Research Grant (MYRG) of the University of Macau	Mar. 2009 – Feb. 2010 (RG054/08-09S/CS/FST)
<b>R&amp;D of Knowledge-based Machine-Aided Bi-Directional Paragraph Translation in Portuguese-Chinese and English-Chinese</b> The Science and Technology Development Fund (FDCT) of Macao	Sep. 2006 – Aug. 2009 (041/2005/A)

## CONSULTANCY PROJECTS

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

## SELECTED PROFESSIONAL SERVICES

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### COMMUNITY AND ORGANIZATIONS

<b>NLPCC Technical Committee</b>   <i>Member</i> China Computer Federation (CCF)	2023 – present
<b>Machine Translation Steering Committee</b>   <i>Member</i> Chinese Information Processing Society of China (CIPS)	2019 – present
<b>Board of Director</b>   <i>Member</i> Chinese Information Processing Society of China (CIPS)	2012 – present
<b>Executive Committee Members</b>   <i>Member-at-Large</i> Asian Federation of Natural Language (AFNLP)	2019 – present
<b>Board of Directors</b>   <i>Vice President</i> Macao Greater Bay Area Artificial Intelligence Institute	2019 – present
<b>IEEE Engineering in Medicine and Biology Society (EMBS)</b>   <i>Chair</i> Hong Kong – Macau Joint Chapter	2015 – 2016
<b>Board of Directors</b>   <i>President</i> Macao Web Intelligence Consortium (WIC) Association	2012 – present
<b>Board of Supervisors</b>   <i>Vice President</i> Macao Society of Biomedical Engineering (MSBME)	2010 – present

### JOURNAL EDITORS & REVIEWERS

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

<b>Reviewers</b>	2015 – present
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)	

## CONFERENCE ORGANIZATIONS

<b>Organizer and Steering Committee Member</b>	2012 – 2024
IEEE SLT (2024), MT Summit (2023), IJCAI (2019), CWMT (2014), O-COCOSDA (2012)	
<b>Program Co-Chair</b>	2012 – 2017
NLPCC (2024), IEEE SLT (2024), CWMT (2017), O-COCOSDA (2012)	
<b>Senior/Area Co-Chair</b>	2016 – 2024
NAACL (2024), EACL (2024), COLING (2024), EMNLP (2020), CCL (2016, 2019, 2021), NLPCC (2018 2019, 2021)	
<b>Demo Co-Chair</b>	2019 – 2020
AACL-IJCNLP (2020), EMNLP (2019)	
<b>Publication Co-Chair</b>	2017 – 2020
COLING (2020), IJCNLP (2017)	
<b>Local Organization Committee</b>	2014 – 2019
EMNLP-IJCNLP (2019), IJCAI (2019), CWMT (2014)	
<b>Sponsorship Co-Chair</b>	2014 – 2020
NLPCC (2020), WAIM (2014)	
<b>Student Research Workshop Co-Chair</b>	2021 – 2023
IJCNLP-AACL (2023), ACL-IJCNLP (2021)	
<b>Senior PC Member</b>	2020 – 2024
ECAI (2024), IJCAI (2020)	
<b>PC Member</b>	2014 – 2023
ICLR, ICML, NeurIPS, AACL, IJCAI, ACL, EMNLP, NAACL-HLT, EACL, MT Summit, COLING, CCL, NLPCC, CCMT	

## SERVICES TO MACAU SOCIETY

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

## SELECTED PUBLICATIONS

### JOURNAL ARTICLES

- [1] Jianhui Pang, Fanghua Ye, Longyue Wang, Dian Yu, **Derek Fai Wong**, Shuming Shi, and Zhaopeng Tu. “Salute the Classic: Revisiting Challenges of Machine Translation in the Age of Large Language Models”. In: *Transactions of the Association for Computational Linguistics* (2024).



- [2] 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.
- [3] 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.
- [4] 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.
- [5] 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.
- [6] 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.
- [7] 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.
- [8] 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.
- [9] Mingzhou Xu, Baosong Yang, **Derek F. Wong**, and Lidia S. Chao. "Multi-view self-attention networks". In: *Knowl. Based Syst.* 241 (2022), p. 108268.
- [10] 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.
- [11] 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.
- [12] 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.
- [13] 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.
- [14] 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).
- [15] 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.
- [16] Xuebo Liu, **Derek F. Wong**, Lidia S. Chao, and Yang Liu. "Latent Attribute Based Hierarchical Decoder for Neural Machine Translation". In: *IEEE ACM Trans. Audio Speech Lang. Process.* 27.12 (2019), pp. 2103–2112.
- [17] Qiang Li, **Derek F. Wong**, Lidia S. Chao, Yaqian Han, Tong Xiao, and Jingbo Zhu. "Template-Driven Neural Machine Translation". In: *Chinese Journal of Computers* 3 (2019).
- [18] Qiang Li, **Derek F. Wong**, Lidia S. Chao, Muhua Zhu, Tong Xiao, Jingbo Zhu, and Min Zhang. "Linguistic Knowledge-Aware Neural Machine Translation". In: *IEEE ACM Trans. Audio Speech Lang. Process.* 26.12 (2018), pp. 2341–2354.
- [19] Bingquan Liu, Zhen Xu, Chengjie Sun, Baoxun Wang, Xiaolong Wang, **Derek F. Wong**, and Min Zhang. "Content-Oriented User Modeling for Personalized Response Ranking in Chatbots". In: *IEEE ACM Trans. Audio Speech Lang. Process.* 26.1 (2018), pp. 122–133.

- [20] **Derek F. Wong** and Deyi Xiong, eds. *Machine Translation - 13th China Workshop, CWMT 2017, Dalian, China, September 27-29, 2017, Revised Selected Papers*. Vol. 787. Communications in Computer and Information Science. Springer, 2017.
- [21] Igor A Lourenço da Silva, Fabio Alves, Marcia Schmaltz, Adriana Pagano, **Derek F. Wong**, Lidia Chao, Ana Luisa V Leal, Paulo Quaresma, Caio Garcia, and Gabriel Eduardo da Silva. "Translation, post-editing and directionality: A study of effort in the Chinese-Portuguese language pair". In: *Translation in Transition*. John Benjamins, 2017, pp. 108–134.
- [22] **Derek F. Wong**, Yi Lu, and Lidia S. Chao. "Bilingual recursive neural network based data selection for statistical machine translation". In: *Knowl. Based Syst.* 108 (2016), pp. 15–24.
- [23] Tong Xiao, **Derek F. Wong**, and Jingbo Zhu. "A Loss-Augmented Approach to Training Syntactic Machine Translation Systems". In: *IEEE ACM Trans. Audio Speech Lang. Process.* 24.11 (2016), pp. 2069–2083.
- [24] Márcia Schmaltz, Igor AL da Silva, Adriana Pagano, Fabio Alves, Ana Luisa V Leal, **Derek F. Wong**, Lidia S Chao, and Paulo Quaresma. "Cohesive relations in text comprehension and production: An exploratory study comparing translation and post-editing". In: *New Directions in Empirical Translation Process Research*. Springer, 2016, pp. 239–263.
- [25] Lidia S. Chao, **Derek F. Wong**, Philip C. L. Chen, Wing W. Y. Ng, and Daniel S. Yeung. "Benefiting feature selection by the discovery of false irrelevant attributes". In: *Int. J. Wavelets Multiresolution Inf. Process.* 13.4 (2015), 1550023:1–1550023:17.
- [26] Xiaodong Zeng, **Derek F. Wong**, Lidia S. Chao, and Isabel Trancoso. "Graph-Based Lexicon Regularization for PCFG With Latent Annotations". In: *IEEE ACM Trans. Audio Speech Lang. Process.* 23.3 (2015), pp. 441–450.
- [27] Igor Antônio Lourenço da Silva, Márcia Schmaltz, Fabio Alves, Adriana Pagano, **Derek F. Wong**, Lidia Chao, Ana Luisa V Leal, Paulo Quaresma, and Caio Garcia. "Translating and post-editing in the Chinese-Portuguese Language pair: insights from an exploratory study of key logging and eye tracking". In: *Translation Spaces* 4.1 (2015), pp. 145–169.
- [28] Xiaodong Zeng, **Derek F. Wong**, Lidia S. Chao, Isabel Trancoso, Liangye He, and Qiuping Huang. "Lexicon expansion for latent variable grammars". In: *Pattern Recognit. Lett.* 42 (2014), pp. 47–55.
- [29] Longyue Wang, **Derek F. Wong**, and Lidia S. Chao. "TQDL: Integrated Models for Cross-Language Document Retrieval". In: *Int. J. Comput. Linguistics Chin. Lang. Process.* 17.4 (2012).
- [30] **Fai Wong** and Sam Chao. "PCT: Portuguese-Chinese machine translation systems". In: *Journal of translation studies* 13.1-2 (2010), pp. 181–196.

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## CONFERENCE PAPERS

- [1] Liangxin Liu, Xuebo Liu, **Derek F. Wong**, Dongfang Li, Ziyi Wang, Baotian Hu, and Min Zhang. "SelectIT: Selective Instruction Tuning for LLMs via Uncertainty-Aware Self-Reflection". In: *Proceedings of the Thirty-eighth Conference on Neural Information Processing Systems 2024, NeurIPS 2024, Vancouver, Canada, December 09 - 15, 2024*. 2024.
- [2] Yiming Wang, Pei Zhang, Baosong Yang, **Derek F. Wong**, Zhuosheng Zhang, and Rui Wang. "Trajectory Volatility for Out-of-Distribution Detection in Mathematical Reasoning". In: *Proceedings of the Thirty-eighth Conference on Neural Information Processing Systems 2024, NeurIPS 2024, Vancouver, Canada, December 09 - 15, 2024*. 2024.
- [3] Junchao Wu, Runzhe Zhan, **Derek F. Wong**, Shu Yang, Xinyi Yang, Yulin Yuan, and Lidia S. Chao. "DetectEval: Benchmarking LLM-Generated Text Detection in Real-World Scenarios". In: *Proceedings of the Thirty-eighth Conference on Neural Information Processing Systems, Datasets and Benchmarks Track, NeurIPS 2024, Vancouver, Canada, December 09-15, 2024*. 2024.

- [4] Fanghua Ye, Mingming Yang, Jianhui Pang, Longyue Wang, **Derek F. Wong**, Emine Yilmaz, Shuming Shi, and Zhaopeng Tu. “Benchmarking LLMs via Uncertainty Quantification”. In: *Proceedings of the Thirty-eighth Conference on Neural Information Processing Systems, Datasets and Benchmarks Track, NeurIPS 2024, Vancouver, Canada, December 09-15, 2024*. 2024.
- [5] Renhao Li, Minghuan Tan, **Derek F. Wong**, and Min Yang. “CoEvol: Constructing Better Responses for Instruction Finetuning through Multi-Agent Cooperation”. In: *Proceedings of the 2024 Conference on Empirical Methods in Natural Language Processing, EMNLP 2024, Miami, Florida, November 12-16, 2024*. Association for Computational Linguistics, 2024.
- [6] Shudong Liu, Zhaocong Li, Xuebo Liu, Runzhe Zhan, **Derek F. Wong**, Lidia S. Chao, and Min zhang. “Can LLMs Learn Uncertainty on Their Own? Expressing Uncertainty Effectively in A Self-Training Manner”. In: *Proceedings of the 2024 Conference on Empirical Methods in Natural Language Processing, EMNLP 2024, Miami, Florida, November 12-16, 2024*. Association for Computational Linguistics, 2024.
- [7] Zhipeng Qian, Pei Zhang, Baosong Yang, Kai Fan, Yiwei Ma, **Derek F. Wong**, Xiaoshuai Sun, and Rongrong Ji. “AnyTrans: Translate AnyText in the Image with Large Scale Models”. In: *Findings of the Association for Computational Linguistics: EMNLP 2024*. Association for Computational Linguistics, 2024.
- [8] Tianxiang Hu, Pei Zhang, Baosong Yang, Jun Xie, **Derek F. Wong**, and Rui Wang. “Large Language Model for Multi-Domain Translation: Benchmarking and Domain CoT Fine-tuning”. In: *Findings of the Association for Computational Linguistics: EMNLP 2024*. Association for Computational Linguistics, 2024.
- [9] Yanming Sun, Xuebo Liu, **Derek F. Wong**, Yuchu Lin, Bei Li, Runzhe Zhan, Lidia S. Chao, and Min Zhang. “Understanding and Improving Low-Resource Neural Machine Translation with Shallow Features”. In: *Natural Language Processing and Chinese Computing - 13th CCF International Conference, NLPCC 2024, Hangzhou, China, October 31 - November 2, 2024, Proceedings*. Ed. by Derek F. Wong, Zhongyu Wei, and Muyun Yang. Lecture Notes in Computer Science. Springer, 2024.
- [10] Jingkun Ma, Runzhe Zhan, **Derek F. Wong**, and Lidia S. Chao. “Activate Integrated Controllable Generation with Soft Prompt”. In: *Natural Language Processing and Chinese Computing - 13th CCF International Conference, NLPCC 2024, Hangzhou, China, October 31 - November 2, 2024, Proceedings*. Ed. by Derek F. Wong, Zhongyu Wei, and Muyun Yang. Lecture Notes in Computer Science. Springer, 2024.
- [11] Xingchen Huang, Yujia Huo, **Derek F. Wong**, Yao Wang, Liqiong Cai, and Yonghong Jiang. “AQLoRA: An Adaptive Quantization-based Efficient Fine-tuning Method for LLMs”. In: *Natural Language Processing and Chinese Computing - 13th CCF International Conference, NLPCC 2024, Hangzhou, China, October 31 - November 2, 2024, Proceedings*. Ed. by Derek F. Wong, Zhongyu Wei, and Muyun Yang. Lecture Notes in Computer Science. Springer, 2024.
- [12] Shanshan Wang, **Derek F. Wong**, Jingming Yao, and Lidia S. Chao. “What is the Best Way for ChatGPT to Translate Poetry?” In: *Proceedings of the 62nd Annual Meeting of the Association for Computational Linguistics (Volume 1: Long Papers), ACL 2024, Bangkok, Thailand, August 11-16, 2024*. 2024.
- [13] Runzhe Zhan, Xinyi Yang, **Derek F. Wong**, Lidia S. Chao, and Yue Zhang. “Prefix Text as a Yarn: Eliciting Non-English Alignment in Foundation Language Model”. In: *Findings of the 62nd Annual Meeting of the Association for Computational Linguistics: ACL 2024, Bangkok, Thailand, August 11-16, 2024*. 2024.
- [14] Jianhui Pang, Fanghua Ye, **Derek F. Wong**, and Longyue Wang. “Anchor-based large language models”. In: *Findings of the 62nd Annual Meeting of the Association for Computational Linguistics: ACL 2024, Bangkok, Thailand, August 11-16, 2024*. 2024.
- [15] Kaixin Lan, Tao Fang, **Derek F. Wong**, Yabo Xu, Lidia S. Chao, and Cecilia G Zhao. “FOCUS: Forging Originality through Contrastive Use in Self-Plagiarism for Language Models”. In: *Findings of the 62nd Annual Meeting of the Association for Computational Linguistics: ACL 2024, Bangkok, Thailand, August 11-16, 2024*. 2024.
- [16] Chen Li, Meishan Zhang, Xuebo Liu, Zhaocong Li, **Derek F. Wong**, and Min Zhang. “Towards Demonstration-Aware Large Language Models for Machine Translation”. In: *Findings of the 62nd Annual Meeting of the Association for Computational Linguistics: ACL 2024, Bangkok, Thailand, August 11-16, 2024*. 2024.

- [17] Zhexuan Wang, Shudong Liu, Xuebo Liu, Miao Zhang, **Derek F. Wong**, and Min Zhang. “Domain-Aware  $k$ -Nearest-Neighbor Knowledge Distillation for Machine Translation”. In: *Findings of the 62nd Annual Meeting of the Association for Computational Linguistics: ACL 2024, Bangkok, Thailand, August 11-16, 2024*. 2024.
- [18] Longyue Wang, Zefeng Du, Wenxiang Jiao, Chenyang Lyu, Jianhui Pang, Leyang Cui, Kaiqiang Song, **Derek F. Wong**, Shuming Shi, and Zhaopeng Tu. “Benchmarking and Improving Long-Text Translation with Large Language Models”. In: *Findings of the 62nd Annual Meeting of the Association for Computational Linguistics: ACL 2024, Bangkok, Thailand, August 11-16, 2024*. 2024.
- [19] Jianhui Pang, Baosong Yang, **Derek F. Wong**, Dayiheng Liu, Xiangpeng Wei, Jun Xie, and Lidia S. Chao. “MoNMT: Modularly Leveraging Monolingual and Bilingual Knowledge for Neural Machine Translation”. In: *Proceedings of the 2024 Joint International Conference on Computational Linguistics, Language Resources and Evaluation (LREC-COLING 2024)*. Torino, Italia: ELRA and ICCL, May 2024, pp. 11560–11573.
- [20] Xinyu Ma, Xuebo Liu, **Derek F. Wong**, Jun Rao, Bei Li, Liang Ding, Lidia S. Chao, Dacheng Tao, and Min Zhang. “3AM: An Ambiguity-Aware Multi-Modal Machine Translation Dataset”. In: *Proceedings of the 2024 Joint International Conference on Computational Linguistics, Language Resources and Evaluation (LREC-COLING 2024)*. 2024, pp. 1–13.
- [21] Guanhua Chen, Yutong Yao, **Derek F. Wong**, and Lidia S. Chao. “A Two-Stage Prediction-Aware Contrastive Learning Framework for Multi-Intent NLU”. In: *Proceedings of the 2024 Joint International Conference on Computational Linguistics, Language Resources and Evaluation (LREC-COLING 2024)*. 2024, pp. 1778–1788.
- [22] Chenyang Lyu, Zefeng Du, Jitao Xu, Yitao Duan, Minghao Wu, Teresa Lynn, Alham Fikri Aji, **Derek F. Wong**, and Longyue Wang. “A Paradigm Shift: The Future of Machine Translation Lies with Large Language Models”. In: *Proceedings of the 2024 Joint International Conference on Computational Linguistics, Language Resources and Evaluation (LREC-COLING 2024)*. 2024, pp. 1339–1352.
- [23] Chi Seng Cheang, Hou Pong Chan, **Derek F. Wong**, Xuebo Liu, Zhaocong Li, Yanming Sun, Shudong Liu, and Lidia S. Chao. “Can LMs Generalize to Future Data? An Empirical Analysis on Text Summarization”. In: *Proceedings of the 2023 Conference on Empirical Methods in Natural Language Processing, EMNLP 2023, Singapore, December 6-10, 2023*. Ed. by Houda Bouamor, Juan Pino, and Kalika Bali. Association for Computational Linguistics, 2023, pp. 16205–16217.
- [24] Runzhe Zhan, Xuebo Liu, **Derek F. Wong**, Cuilian Zhang, Lidia S. Chao, and Min Zhang. “Test-time Adaptation for Machine Translation Evaluation by Uncertainty Minimization”. In: *Proceedings of the 61st Annual Meeting of the Association for Computational Linguistics (Volume 1: Long Papers), ACL 2023, Toronto, Canada, July 9-14, 2023*. Ed. by Anna Rogers, Jordan L. Boyd-Graber, and Naoaki Okazaki. Association for Computational Linguistics, 2023, pp. 807–820.
- [25] Shudong Liu, Xuebo Liu, **Derek F. Wong**, Zhaocong Li, Wenxiang Jiao, Lidia S. Chao, and Min Zhang. “kNN-TL: k-Nearest-Neighbor Transfer Learning for Low-Resource Neural Machine Translation”. In: *Proceedings of the 61st Annual Meeting of the Association for Computational Linguistics (Volume 1: Long Papers), ACL 2023, Toronto, Canada, July 9-14, 2023*. Ed. by Anna Rogers, Jordan L. Boyd-Graber, and Naoaki Okazaki. Association for Computational Linguistics, 2023, pp. 1878–1891.
- [26] Xuebo Liu, Yutong Wang, **Derek F. Wong**, Runzhe Zhan, Liangxuan Yu, and Min Zhang. “Revisiting Commonsense Reasoning in Machine Translation: Training, Evaluation and Challenge”. In: *Proceedings of the 61st Annual Meeting of the Association for Computational Linguistics (Volume 1: Long Papers), ACL 2023, Toronto, Canada, July 9-14, 2023*. Ed. by Anna Rogers, Jordan L. Boyd-Graber, and Naoaki Okazaki. Association for Computational Linguistics, 2023, pp. 15536–15550.

- [27] Qingyu Lu, Liang Ding, Liping Xie, Kanjian Zhang, **Derek F. Wong**, and Dacheng Tao. "Toward Human-Like Evaluation for Natural Language Generation with Error Analysis". In: *Proceedings of the 61st Annual Meeting of the Association for Computational Linguistics (Volume 1: Long Papers)*, **ACL 2023**, Toronto, Canada, July 9-14, 2023. Ed. by Anna Rogers, Jordan L. Boyd-Graber, and Naoaki Okazaki. Association for Computational Linguistics, 2023, pp. 5892–5907.
- [28] Yinghao Li, Xuebo Liu, Shuo Wang, Peiyuan Gong, **Derek F. Wong**, Yang Gao, Heyan Huang, and Min Zhang. "TemplateGEC: Improving Grammatical Error Correction with Detection Template". In: *Proceedings of the 61st Annual Meeting of the Association for Computational Linguistics (Volume 1: Long Papers)*, **ACL 2023**, Toronto, Canada, July 9-14, 2023. Ed. by Anna Rogers, Jordan L. Boyd-Graber, and Naoaki Okazaki. Association for Computational Linguistics, 2023, pp. 6878–6892.
- [29] Tao Fang, Jinpeng Hu, **Derek F. Wong**, Xiang Wan, Lidia S. Chao, and Tsung-Hui Chang. "Improving Grammatical Error Correction with Multimodal Feature Integration". In: *Findings of the Association for Computational Linguistics: ACL 2023*, Toronto, Canada, July 9-14, 2023. Ed. by Anna Rogers, Jordan L. Boyd-Graber, and Naoaki Okazaki. Association for Computational Linguistics, 2023, pp. 9328–9344.
- [30] Tao Fang, Xuebo Liu, **Derek F. Wong**, Runzhe Zhan, Liang Ding, Lidia S. Chao, Dacheng Tao, and Min Zhang. "TransGEC: Improving Grammatical Error Correction with Translationese". In: *Findings of the Association for Computational Linguistics: ACL 2023*, Toronto, Canada, July 9-14, 2023. Ed. by Anna Rogers, Jordan L. Boyd-Graber, and Naoaki Okazaki. Association for Computational Linguistics, 2023, pp. 3614–3633.
- [31] Zhihong Huang, Longyue Wang, Siyou Liu, and **Derek F. Wong**. "How Does Pretraining Improve Discourse-Aware Translation?" In: *Proc. INTERSPEECH 2023*. 2023, pp. 3899–3903.
- [32] Xinyi Yang, Runzhe Zhan, **Derek F. Wong**, Junchao Wu, and Lidia S Chao. "Human-in-the-loop Machine Translation with Large Language Model". In: *Proceedings of Machine Translation Summit XIX, Vol. 2: Users Track*. 2023, pp. 88–98.
- [33] Wai Lei Song, Haoyun Xu, **Derek F. Wong**, Runzhe Zhan, Lidia S Chao, and Shanshan Wang. "Towards Zero-Shot Multilingual Poetry Translation". In: *Proceedings of Machine Translation Summit XIX, Vol. 2: Users Track*. 2023, p. 324.
- [34] Jingkun Ma, Runzhe Zhan, and **Derek F. Wong**. "Yu Sheng: Human-in-Loop Classical Chinese Poetry Generation System". In: *Proceedings of the 17th Conference of the European Chapter of the Association for Computational Linguistics. EACL 2023 - System Demonstrations*, Dubrovnik, Croatia, May 2-4, 2023. Ed. by Danilo Croce and Luca Soldaini. Association for Computational Linguistics, 2023, pp. 57–66.
- [35] Mingzhou Xu, Longyue Wang, **Derek F. Wong**, Hongye Liu, Linfeng Song, Lidia S. Chao, Shuming Shi, and Zhaopeng Tu. "GuoFeng: A Benchmark for Zero Pronoun Recovery and Translation". In: *Proceedings of the 2022 Conference on Empirical Methods in Natural Language Processing, EMNLP 2022*. Abu Dhabi, United Arab Emirates: Association for Computational Linguistics, Dec. 2022, pp. 11266–11278.
- [36] Zhaocong Li, Xuebo Liu, **Derek F. Wong**, Lidia S. Chao, and Min Zhang. "ConsistTL: Modeling Consistency in Transfer Learning for Low-Resource Neural Machine Translation". In: *Proceedings of the 2022 Conference on Empirical Methods in Natural Language Processing, EMNLP 2022*. Abu Dhabi, United Arab Emirates: Association for Computational Linguistics, Dec. 2022, pp. 8383–8394.
- [37] Yu Wan, Dayiheng Liu, Baosong Yang, Haibo Zhang, Boxing Chen, **Derek F. Wong**, and Lidia S. Chao. "UniTE: Unified Translation Evaluation". In: *Proceedings of the 60th Annual Meeting of the Association for Computational Linguistics, ACL 2022*, Online, May 22-27, 2022. Association for Computational Linguistics, May 2022.
- [38] Yu Wan, Baosong Yang, Dayiheng Liu, Rong Xiao, **Derek F. Wong**, Haibo Zhang, Boxing Chen, and Lidia S. Chao. "Attention Mechanism with Energy-Friendly Operations". In: *Findings of the Association for Computational Linguistics: ACL 2022*, Online, May 22-27, 2022. Association for Computational Linguistics, May 2022.

- [39] Yu Wan, Keqin Bao, Dayiheng Liu, Baosong Yang, **Derek F. Wong**, Lidia S. Chao, Wenqiang Lei, and Jun Xie. “Alibaba-Translate China’s Submission for WMT2022 Metrics Shared Task”. In: *Proceedings of the Seventh Conference on Machine Translation*. Abu Dhabi: Association for Computational Linguistics, Dec. 2022, pp. 586–592.
- [40] Keqin Bao, Yu Wan, Dayiheng Liu, Baosong Yang, Wenqiang Lei, Xiangnan He, **Derek F. Wong**, and Jun Xie. “Alibaba-Translate China’s Submission for WMT 2022 Quality Estimation Shared Task”. In: *Proceedings of the Seventh Conference on Machine Translation*. Abu Dhabi: Association for Computational Linguistics, Dec. 2022, pp. 597–605.
- [41] Xuebo Liu, Longyue Wang, **Derek F. Wong**, Liang Ding, Lidia S. Chao, Shuming Shi, and Zhaopeng Tu. “On the Complementarity between Pre-Training and Back-Translation for Neural Machine Translation”. In: *Findings of the Association for Computational Linguistics: EMNLP 2021*. Punta Cana, Dominican Republic: Association for Computational Linguistics, Nov. 2021, pp. 2900–2907.
- [42] Mingzhou Xu, Liangyou Li, **Derek F. Wong**, Qun Liu, and Lidia S. Chao. “Document Graph for Neural Machine Translation”. In: *Proceedings of the 2021 Conference on Empirical Methods in Natural Language Processing, EMNLP 2021*. Online and Punta Cana, Dominican Republic: Association for Computational Linguistics, Nov. 2021, pp. 8435–8448.
- [43] Yu Wan, Dayiheng Liu, Baosong Yang, Tianchi Bi, Haibo Zhang, Boxing Chen, Weihua Luo, **Derek F. Wong**, and Lidia S. Chao. “RoBLEURT Submission for WMT2021 Metrics Task”. In: *Proceedings of the Sixth Conference on Machine Translation*. Online: Association for Computational Linguistics, Nov. 2021, pp. 1053–1058.
- [44] Runzhe Zhan, Xuebo Liu, **Derek F. Wong**, and Lidia S. Chao. “Variance-Aware Machine Translation Test Sets”. In: *Thirty-fifth Conference on Neural Information Processing Systems, Datasets and Benchmarks Track, NeurIPS 2021, December 6-14, 2021, virtual*. 2021.
- [45] Runzhe Zhan, Xuebo Liu, **Derek F. Wong**, and Lidia S. Chao. “Meta-Curriculum Learning for Domain Adaptation in Neural Machine Translation”. In: *Thirty-Fifth AAAI Conference on Artificial Intelligence, AAAI 2021, Thirty-Third Conference on Innovative Applications of Artificial Intelligence, IAAI 2021, The Eleventh Symposium on Educational Advances in Artificial Intelligence, EAAI 2021, Virtual Event, February 2-9, 2021*. AAAI Press, 2021, pp. 14310–14318.
- [46] Runzhe Zhan, Xuebo Liu, **Derek F. Wong**, and Lidia S. Chao. “Difficulty-Aware Machine Translation Evaluation”. In: *Proceedings of the 59th Annual Meeting of the Association for Computational Linguistics and the 11th International Joint Conference on Natural Language Processing, ACL/IJCNLP 2021, Virtual Event, August 1-6, 2021*. Ed. by Chengqing Zong, Fei Xia, Wenjie Li, and Roberto Navigli. Association for Computational Linguistics, 2021, pp. 26–32.
- [47] Liang Ding, Longyue Wang, Xuebo Liu, **Derek F. Wong**, Dacheng Tao, and Zhaopeng Tu. “Progressive Multi-Granularity Training for Non-Autoregressive Translation”. In: *Findings of the Association for Computational Linguistics: ACL/IJCNLP 2021, Online Event, August 1-6, 2021*. Ed. by Chengqing Zong, Fei Xia, Wenjie Li, and Roberto Navigli. Association for Computational Linguistics, 2021, pp. 2797–2803.
- [48] Liang Ding, Longyue Wang, Xuebo Liu, **Derek F. Wong**, Dacheng Tao, and Zhaopeng Tu. “Rejuvenating Low-Frequency Words: Making the Most of Parallel Data in Non-Autoregressive Translation”. In: *Proceedings of the 59th Annual Meeting of the Association for Computational Linguistics and the 11th International Joint Conference on Natural Language Processing, ACL/IJCNLP 2021, Virtual Event, August 1-6, 2021*. Ed. by Chengqing Zong, Fei Xia, Wenjie Li, and Roberto Navigli. Association for Computational Linguistics, 2021, pp. 3431–3441.
- [49] Xuebo Liu, Longyue Wang, **Derek F. Wong**, Liang Ding, Lidia S. Chao, Shuming Shi, and Zhaopeng Tu. “On the Copying Behaviors of Pre-Training for Neural Machine Translation”. In: *Findings of the Association for Computational Linguistics: ACL/IJCNLP 2021, Online Event, August 1-6, 2021*. Ed. by Chengqing Zong, Fei Xia, Wenjie Li, and Roberto Navigli. Association for Computational Linguistics, 2021, pp. 4265–4275.

- [50] Xuebo Liu, Longyue Wang, **Derek F. Wong**, Liang Ding, Lidia S. Chao, and Zhaopeng Tu. “Understanding and Improving Encoder Layer Fusion in Sequence-to-Sequence Learning”. In: *9th International Conference on Learning Representations, ICLR 2021, Virtual Event, Austria, May 3-7, 2021*. OpenReview.net, 2021.
- [51] Liang Ding, Longyue Wang, Xuebo Liu, **Derek F. Wong**, Dacheng Tao, and Zhaopeng Tu. “Understanding and Improving Lexical Choice in Non-Autoregressive Translation”. In: *9th International Conference on Learning Representations, ICLR 2021, Virtual Event, Austria, May 3-7, 2021*. OpenReview.net, 2021.
- [52] Yang Zhang, Dong Wang, Qiang Li, Yue Shen, Ziqi Liu, Xiaodong Zeng, Zhiqiang Zhang, Jinjie Gu, and **Derek F. Wong**. “User Retention: A Causal Approach with Triple Task Modeling”. In: *Proceedings of the Thirtieth International Joint Conference on Artificial Intelligence, IJCAI 2021, Virtual Event / Montreal, Canada, 19-27 August 2021*. Ed. by Zhi-Hua Zhou. ijcai.org, 2021, pp. 3399–3405.
- [53] Xuefeng Bai, Yafu Li, Zhirui Zhang, Mingzhou Xu, Boxing Chen, Weihua Luo, **Derek F. Wong**, and Yue Zhang. “Sentence-State LSTMs For Sequence-to-Sequence Learning”. In: *Natural Language Processing and Chinese Computing - 10th CCF International Conference, NLPCC 2021, Qingdao, China, October 13-17, 2021, Proceedings, Part I*. Ed. by Lu Wang, Yansong Feng, Yu Hong, and Ruifang He. Vol. 13028. Lecture Notes in Computer Science. Springer, 2021, pp. 104–115.
- [54] Yu Wan, Baosong Yang, **Derek F. Wong**, Lidia S. Chao, Haihua Du, and Ben C. H. Ao. “Unsupervised Neural Dialect Translation with Commonality and Diversity Modeling”. In: *The Thirty-Fourth AAAI Conference on Artificial Intelligence, AAAI 2020, The Thirty-Second Innovative Applications of Artificial Intelligence Conference, IAAI 2020, The Tenth AAAI Symposium on Educational Advances in Artificial Intelligence, EAAI 2020, New York, NY, USA, February 7-12, 2020*. AAAI Press, 2020, pp. 9130–9137.
- [55] Bowen Wu, Mengyuan Li, Zongsheng Wang, Yifu Chen, **Derek F. Wong**, Qihang Feng, Junhong Huang, and Baoxun Wang. “Guiding Variational Response Generator to Exploit Persona”. In: *Proceedings of the 58th Annual Meeting of the Association for Computational Linguistics, ACL 2020, Online, July 5-10, 2020*. Ed. by Dan Jurafsky, Joyce Chai, Natalie Schluter, and Joel R. Tetreault. Association for Computational Linguistics, 2020, pp. 53–65.
- [56] Xuebo Liu, Houtim Lai, **Derek F. Wong**, and Lidia S. Chao. “Norm-Based Curriculum Learning for Neural Machine Translation”. In: *Proceedings of the 58th Annual Meeting of the Association for Computational Linguistics, ACL 2020, Online, July 5-10, 2020*. Ed. by Dan Jurafsky, Joyce Chai, Natalie Schluter, and Joel R. Tetreault. Association for Computational Linguistics, 2020, pp. 427–436.
- [57] Yikai Zhou, Baosong Yang, **Derek F. Wong**, Yu Wan, and Lidia S. Chao. “Uncertainty-Aware Curriculum Learning for Neural Machine Translation”. In: *Proceedings of the 58th Annual Meeting of the Association for Computational Linguistics, ACL 2020, Online, July 5-10, 2020*. Ed. by Dan Jurafsky, Joyce Chai, Natalie Schluter, and Joel R. Tetreault. Association for Computational Linguistics, 2020, pp. 6934–6944.
- [58] Yu Wan, Baosong Yang, **Derek F. Wong**, Yikai Zhou, Lidia S. Chao, Haibo Zhang, and Boxing Chen. “Self-Paced Learning for Neural Machine Translation”. In: *Proceedings of the 2020 Conference on Empirical Methods in Natural Language Processing, EMNLP 2020, Online, November 16-20, 2020*. Ed. by Bonnie Webber, Trevor Cohn, Yulan He, and Yang Liu. Association for Computational Linguistics, 2020, pp. 1074–1080.
- [59] Xuancheng Huang, Jiacheng Zhang, Zhixing Tan, **Derek F. Wong**, Huanbo Luan, Jingfang Xu, Maosong Sun, and Yang Liu. “Modeling Voting for System Combination in Machine Translation”. In: *Proceedings of the Twenty-Ninth International Joint Conference on Artificial Intelligence, IJCAI 2020*. Ed. by Christian Bessiere. ijcai.org, 2020, pp. 3694–3701.
- [60] Shuailong Liang, **Derek F. Wong**, and Yue Zhang. “Exploring COVID-19-related Twitter Topic Dynamics across Countries”. In: *Proceedings of the 19th Chinese National Conference on Computational Linguistics*. 2020, pp. 707–718.

- [61] Baosong Yang, Jian Li, **Derek F. Wong**, Lidia S. Chao, Xing Wang, and Zhaopeng Tu. “Context-Aware Self-Attention Networks”. In: *The Thirty-Third AAAI Conference on Artificial Intelligence, AAAI 2019, The Thirty-First Innovative Applications of Artificial Intelligence Conference, IAAI 2019, The Ninth AAAI Symposium on Educational Advances in Artificial Intelligence, EAAI 2019, Honolulu, Hawaii, USA, January 27 - February 1, 2019*. AAAI Press, 2019, pp. 387–394.
- [62] Qiang Wang, Bei Li, Tong Xiao, Jingbo Zhu, Changliang Li, **Derek F. Wong**, and Lidia S. Chao. “Learning Deep Transformer Models for Machine Translation”. In: *Proceedings of the 57th Conference of the Association for Computational Linguistics, ACL 2019, Florence, Italy, July 28- August 2, 2019*. Ed. by Anna Korhonen, David R. Traum, and Lluís Màrquez. Association for Computational Linguistics, 2019, pp. 1810–1822.
- [63] Mingzhou Xu, **Derek F. Wong**, Baosong Yang, Yue Zhang, and Lidia S. Chao. “Leveraging Local and Global Patterns for Self-Attention Networks”. In: *Proceedings of the 57th Conference of the Association for Computational Linguistics, ACL 2019, Florence, Italy, July 28- August 2, 2019*. Ed. by Anna Korhonen, David R. Traum, and Lluís Màrquez. Association for Computational Linguistics, 2019, pp. 3069–3075.
- [64] Xuebo Liu, **Derek F. Wong**, Yang Liu, Lidia S. Chao, Tong Xiao, and Jingbo Zhu. “Shared-Private Bilingual Word Embeddings for Neural Machine Translation”. In: *Proceedings of the 57th Conference of the Association for Computational Linguistics, ACL 2019, Florence, Italy, July 28- August 2, 2019*. Ed. by Anna Korhonen, David R. Traum, and Lluís Màrquez. Association for Computational Linguistics, 2019, pp. 3613–3622.
- [65] Baosong Yang, Longyue Wang, **Derek F. Wong**, Lidia S. Chao, and Zhaopeng Tu. “Assessing the Ability of Self-Attention Networks to Learn Word Order”. In: *Proceedings of the 57th Conference of the Association for Computational Linguistics, ACL 2019, Florence, Italy, July 28- August 2, 2019*. Ed. by Anna Korhonen, David R. Traum, and Lluís Màrquez. Association for Computational Linguistics, 2019, pp. 3635–3644.
- [66] Baosong Yang, Longyue Wang, **Derek F. Wong**, Lidia S. Chao, and Zhaopeng Tu. “Convolutional Self-Attention Networks”. In: *Proceedings of the 2019 Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies, NAACL-HLT 2019, Minneapolis, MN, USA, June 2-7, 2019, Volume 1*. Ed. by Jill Burstein, Christy Doran, and Thamar Solorio. Association for Computational Linguistics, 2019, pp. 4040–4045.
- [67] Baosong Yang, Zhaopeng Tu, **Derek F. Wong**, Fandong Meng, Lidia S. Chao, and Tong Zhang. “Modeling Localness for Self-Attention Networks”. In: *Proceedings of the 2018 Conference on Empirical Methods in Natural Language Processing, EMNLP 2018, Brussels, Belgium, October 31 - November 4, 2018*. Ed. by Ellen Riloff, David Chiang, Julia Hockenmaier, and Jun’ichi Tsujii. Association for Computational Linguistics, 2018, pp. 4449–4458.
- [68] Lidia S. Chao, **Derek F. Wong**, Chi Hong Ao, and Ana Luisa Leal. “UM-PCorpus: A Large Portuguese-Chinese Parallel Corpus”. In: *Proceedings of the LREC 2018 Workshop Belt and Road: Language Resources and Evaluation*. ELRA–European Language Resources Association, 2018.
- [69] Chongman Leong, **Derek F. Wong**, and Lidia S. Chao. “UM-pAligner: Neural network-based parallel sentence identification model”. In: *Proceedings of the 11th Workshop on Building and Using Comparable Corpora*. ELRA–European Language Resources Association, 2018, p. 53.
- [70] Baosong Yang, **Derek F. Wong**, Tong Xiao, Lidia S. Chao, and Jingbo Zhu. “Towards Bidirectional Hierarchical Representations for Attention-based Neural Machine Translation”. In: *Proceedings of the 2017 Conference on Empirical Methods in Natural Language Processing, EMNLP 2017, Copenhagen, Denmark, September 9-11, 2017*. Ed. by Martha Palmer, Rebecca Hwa, and Sebastian Riedel. Association for Computational Linguistics, 2017, pp. 1432–1441.
- [71] Mingzhou Xu, Qiang Li, Chi Hong Ao, Ying Li, Lidia S. Chao, and **Derek F. Wong**. “The um-nlp2ct neural machine translation system for cwmt2017 translation task”. In: *Proceedings of the 13th China Workshop on Machine Translation (CWMT 2017), Dalian, China. 2017*.
- [72] Yu Tong, **Derek F. Wong**, and Lidia S. Chao. “Exploiting rich feature representation for smt n-best reranking”. In: *2016 International Conference on Wavelet Analysis and Pattern Recognition (ICWAPR)*. IEEE, 2016, pp. 101–106.



- [73] Junwen Xing, **Derek F. Wong**, Lidia S. Chao, Ana Luisa V Leal, Marcia Schmaltz, and Chunhui Lu. "Syntaxtree aligner: A web-based parallel tree alignment toolkit". In: *2016 International Conference on Wavelet Analysis and Pattern Recognition (ICWAPR)*. IEEE. 2016, pp. 37–42.
- [74] Aaron Li-Feng Han, Xiaodong Zeng, **Derek F. Wong**, and Lidia S. Chao. "Chinese Named Entity Recognition with Graph-based Semi-supervised Learning Model". In: *Proceedings of the Eighth SIGHAN Workshop on Chinese Language Processing, SIGHAN@IJCNLP 2015, Beijing, China, July 30-31, 2015*. Ed. by Liang-Chih Yu, Zhifang Sui, Yue Zhang, and Vincent Ng. Association for Computational Linguistics, 2015, pp. 15–20.
- [75] Xiaodong Zeng, Lidia S. Chao, **Derek F. Wong**, Isabel Trancoso, and Liang Tian. "Toward Better Chinese Word Segmentation for SMT via Bilingual Constraints". In: *Proceedings of the 52nd Annual Meeting of the Association for Computational Linguistics, ACL 2014, June 22-27, 2014, Baltimore, MD, USA*. The Association for Computer Linguistics, 2014, pp. 1360–1369.
- [76] Aaron Li-Feng Han, **Derek F. Wong**, Lidia S. Chao, Yi Lu, Liangye He, and Liang Tian. "A Universal Phrase Tagset for Multilingual Treebanks". In: *Chinese Computational Linguistics and Natural Language Processing Based on Naturally Annotated Big Data - 13th China National Conference, CCL 2014, and Second International Symposium, NLP-NABD 2014, Wuhan, China, October 18-19, 2014. Proceedings*. Ed. by Maosong Sun, Yang Liu, and Jun Zhao. Vol. 8801. Lecture Notes in Computer Science. Springer, 2014, pp. 247–258.
- [77] Yiming Wang, Longyue Wang, Xiaodong Zeng, **Derek F. Wong**, Lidia S. Chao, and Yi Lu. "Factored Statistical Machine Translation for Grammatical Error Correction". In: *Proceedings of the Eighteenth Conference on Computational Natural Language Learning: Shared Task, CoNLL 2014, Baltimore, Maryland, USA, June 26-27, 2014*. Ed. by Hwee Tou Ng, Siew Mei Wu, Ted Briscoe, Christian Hadiwinoto, Raymond Hendy Susanto, and Christopher Bryant. ACL, 2014, pp. 83–90.
- [78] Liang Tian, **Derek F. Wong**, Lidia S. Chao, Paulo Quaresma, Francisco Oliveira, and Lu Yi. "UM-Corpus: A Large English-Chinese Parallel Corpus for Statistical Machine Translation". In: *Proceedings of the Ninth International Conference on Language Resources and Evaluation, LREC 2014, Reykjavik, Iceland, May 26-31, 2014*. Ed. by Nicoletta Calzolari, Khalid Choukri, Thierry Declerck, Hrafn Loftsson, Bente Maegaard, Joseph Mariani, Asunción Moreno, Jan Odijk, and Stelios Piperidis. European Language Resources Association (ELRA), 2014, pp. 1837–1842.
- [79] Yi Lu, Longyue Wang, **Derek F. Wong**, Lidia S. Chao, and Yiming Wang. "Domain Adaptation for Medical Text Translation using Web Resources". In: *Proceedings of the Ninth Workshop on Statistical Machine Translation, WMT@ACL 2014, June 26-27, 2014, Baltimore, Maryland, USA*. The Association for Computer Linguistics, 2014, pp. 233–238.
- [80] Longyue Wang, Yi Lu, **Derek F. Wong**, Lidia S. Chao, Yiming Wang, and Francisco Oliveira. "Combining Domain Adaptation Approaches for Medical Text Translation". In: *Proceedings of the Ninth Workshop on Statistical Machine Translation, WMT@ACL 2014, June 26-27, 2014, Baltimore, Maryland, USA*. The Association for Computer Linguistics, 2014, pp. 254–259.
- [81] Xiaodong Zeng, **Derek F. Wong**, Lidia S. Chao, and Isabel Trancoso. "Co-regularizing character-based and word-based models for semi-supervised Chinese word segmentation". In: *Proceedings of the 51st Annual Meeting of the Association for Computational Linguistics, ACL 2013, 4-9 August 2013, Sofia, Bulgaria*. The Association for Computer Linguistics, 2013, pp. 171–176.
- [82] Xiaodong Zeng, **Derek F. Wong**, Lidia S. Chao, and Isabel Trancoso. "Graph-based Semi-Supervised Model for Joint Chinese Word Segmentation and Part-of-Speech Tagging". In: *Proceedings of the 51st Annual Meeting of the Association for Computational Linguistics, ACL 2013, 4-9 August 2013, Sofia, Bulgaria*. The Association for Computer Linguistics, 2013, pp. 770–779.
- [83] Longyue Wang, **Derek F. Wong**, Lidia S. Chao, Yi Lu, and Junwen Xing. "iCPE: A Hybrid Data Selection Model for SMT Domain Adaptation". In: *Chinese Computational Linguistics and Natural Language Processing Based on Naturally Annotated Big Data - 12th China National Conference, CCL 2013 and First International Symposium, NLP-NABD 2013, Suzhou, China, October 10-12, 2013. Proceedings*. Ed. by Maosong Sun, Min

Zhang, Dekang Lin, and Haifeng Wang. Vol. 8202. Lecture Notes in Computer Science. Springer, 2013, pp. 280–290.

- [84] Junwen Xing, Longyue Wang, **Derek F. Wong**, Lidia S. Chao, and Xiaodong Zeng. “UM-Checker: A Hybrid System for English Grammatical Error Correction”. In: *Proceedings of the Seventeenth Conference on Computational Natural Language Learning: Shared Task, CoNLL 2013, Sofia, Bulgaria, August 8-9, 2013*. Ed. by Hwee Tou Ng, Joel R. Tetreault, Siew Mei Wu, Yuanbin Wu, and Christian Hadiwinoto. ACL, 2013, pp. 34–42.
- [85] Aaron Li-Feng Han, **Derek F. Wong**, Lidia S. Chao, Liangye He, Ling Zhu, and Shuo Li. “A Study of Chinese Word Segmentation Based on the Characteristics of Chinese”. In: *Language Processing and Knowledge in the Web - 25th International Conference, GSCL 2013, Darmstadt, Germany, September 25-27, 2013. Proceedings*. Ed. by Iryna Gurevych, Chris Biemann, and Torsten Zesch. Vol. 8105. Lecture Notes in Computer Science. Springer, 2013, pp. 111–118.
- [86] Aaron Li-Feng Han, **Derek F. Wong**, Lidia S. Chao, Liangye He, Shuo Li, and Ling Zhu. “Phrase Tagset Mapping for French and English Treebanks and Its Application in Machine Translation Evaluation”. In: *Language Processing and Knowledge in the Web - 25th International Conference, GSCL 2013, Darmstadt, Germany, September 25-27, 2013. Proceedings*. Ed. by Iryna Gurevych, Chris Biemann, and Torsten Zesch. Vol. 8105. Lecture Notes in Computer Science. Springer, 2013, pp. 119–131.
- [87] Shuo Li, **Derek F. Wong**, and Lidia S. Chao. “Experiments with POS-based restructuring and alignment-based reordering for statistical machine translation”. In: *Proceedings of the Second Workshop on Hybrid Approaches to Translation, HyTra@ACL 2013, August 8, 2013, Sofia, Bulgaria*. Ed. by Marta R. Costa-jussà, Reinhard Rapp, Patrik Lambert, Kurt Eberle, Rafael E. Banchs, and Bogdan Babych. The Association for Computer Linguistics, 2013, pp. 82–87.
- [88] Aaron L. F. Han, **Derek F. Wong**, and Lidia S. Chao. “Chinese Named Entity Recognition with Conditional Random Fields in the Light of Chinese Characteristics”. In: *Language Processing and Intelligent Information Systems - 20th International Conference, IIS 2013, Warsaw, Poland, June 17-18, 2013. Proceedings*. Ed. by Mieczysław A. Kłopotek, Jacek Koronacki, Malgorzata Marciniak, Agnieszka Mykowiecka, and Sławomir T. Wierzbach. Vol. 7912. Lecture Notes in Computer Science. Springer, 2013, pp. 57–68.
- [89] Francisco Oliveira, **Derek F. Wong**, Lidia S. Chao, Liang Tian, and Liangye He. “Influence of Part-of-Speech and Phrasal Category Universal Tag-set in Tree-to-Tree Translation Models”. In: *Sixth International Joint Conference on Natural Language Processing, IJCNLP 2013, Nagoya, Japan, October 14-18, 2013. Asian Federation of Natural Language Processing / ACL, 2013*, pp. 907–911.
- [90] Qiuping Huang, **Derek F. Wong**, Lidia S. Chao, Xiaodong Zeng, and Liangye He. “Augmented Parsing of Unknown Word by Graph-Based Semi-Supervised Learning”. In: *Proceedings of the 27th Pacific Asia Conference on Language, Information and Computation, PACLIC 27, Taipei, Taiwan, November 21-24, 2013*. National Chengchi University, Taiwan, 2013.
- [91] Longyue Wang, **Derek F. Wong**, Lidia S. Chao, Junwen Xing, Yi Lu, and Isabel Trancoso. “Edit Distance: A New Data Selection Criterion for Domain Adaptation in SMT”. In: *Recent Advances in Natural Language Processing, RANLP 2013, 9-11 September, 2013, Hissar, Bulgaria*. Ed. by Galia Angelova, Kalina Bontcheva, and Ruslan Mitkov. RANLP, 2013, pp. 727–732.
- [92] Aaron L. F. Han, **Derek F. Wong**, Lidia S. Chao, and Liangye He. “Automatic Machine Translation Evaluation with Part-of-Speech Information”. In: *Text, Speech, and Dialogue - 16th International Conference, TSD 2013, Pilsen, Czech Republic, September 1-5, 2013. Proceedings*. Ed. by Ivan Habernal and Václav Matousek. Vol. 8082. Lecture Notes in Computer Science. Springer, 2013, pp. 121–128.
- [93] Aaron Li-Feng Han, Yi Lu, **Derek F. Wong**, Lidia S. Chao, Liangye He, and Junwen Xing. “Quality Estimation for Machine Translation Using the Joint Method of Evaluation Criteria and Statistical Modeling”. In: *Proceedings of the Eighth Workshop on Statistical Machine Translation, WMT@ACL 2013, August 8-9, 2013, Sofia, Bulgaria*. The Association for Computer Linguistics, 2013, pp. 365–372.

- [94] Aaron Li-Feng Han, **Derek F. Wong**, Lidia S. Chao, Yi Lu, Liangye He, Yiming Wang, and Jiaji Zhou. "A Description of Tunable Machine Translation Evaluation Systems in WMT13 Metrics Task". In: *Proceedings of the Eighth Workshop on Statistical Machine Translation, WMT@ACL 2013, August 8-9, 2013, Sofia, Bulgaria*. The Association for Computer Linguistics, 2013, pp. 414–421.
- [95] Longyue Wang, **Derek F. Wong**, Lidia S. Chao, and Junwen Xing. "CRFs-Based Chinese Word Segmentation for Micro-Blog with Small-Scale Data". In: *Proceedings of the Second CIPS-SIGHAN Joint Conference on Chinese Language Processing, Tianjin, China, December 20-21, 2012*. Association for Computational Linguistics, 2012, pp. 51–57.
- [96] Hao Zong, **Derek F. Wong**, and Lidia S. Chao. "Rules Design in Word Segmentation of Chinese Micro-Blog". In: *Proceedings of the Second CIPS-SIGHAN Joint Conference on Chinese Language Processing, Tianjin, China, December 20-21, 2012*. Association for Computational Linguistics, 2012, pp. 90–94.
- [97] Hao Zong, **Derek F. Wong**, and Lidia S. Chao. "A Template Based Hybrid Model for Chinese Personal Name Disambiguation". In: *Proceedings of the Second CIPS-SIGHAN Joint Conference on Chinese Language Processing, Tianjin, China, December 20-21, 2012*. Association for Computational Linguistics, 2012, pp. 121–126.
- [98] Longyue Wang, Shuo Li, **Derek F. Wong**, and Lidia S. Chao. "A Joint Chinese Named Entity Recognition and Disambiguation System". In: *Proceedings of the Second CIPS-SIGHAN Joint Conference on Chinese Language Processing, Tianjin, China, December 20-21, 2012*. Association for Computational Linguistics, 2012, pp. 146–151.
- [99] Qiuping Huang, Liangye He, **Derek F. Wong**, and Lidia S. Chao. "A Simplified Chinese Parser with Factored Model". In: *Proceedings of the Second CIPS-SIGHAN Joint Conference on Chinese Language Processing, Tianjin, China, December 20-21, 2012*. Association for Computational Linguistics, 2012, pp. 188–193.
- [100] Liangye He, **Derek F. Wong**, and Lidia S. Chao. "Adapting Multilingual Parsing Models to Sinica Treebank". In: *Proceedings of the Second CIPS-SIGHAN Joint Conference on Chinese Language Processing, Tianjin, China, December 20-21, 2012*. Association for Computational Linguistics, 2012, pp. 211–215.
- [101] Aaron L. F. Han, **Derek F. Wong**, and Lidia S. Chao. "LEPOR: A Robust Evaluation Metric for Machine Translation with Augmented Factors". In: *COLING 2012, 24th International Conference on Computational Linguistics, Proceedings of the Conference: Posters, 8-15 December 2012, Mumbai, India*. Ed. by Martin Kay and Christian Boitet. Indian Institute of Technology Bombay, 2012, pp. 441–450.
- [102] Longyue Wang, **Derek F. Wong**, and Lidia S. Chao. "An Improvement in Cross-Language Document Retrieval Based on Statistical Models". In: *Proceedings of the 24th Conference on Computational Linguistics and Speech Processing, ROCLING 2012, Yuan Ze University, Chung-Li, Taiwan, September 21-22, 2012*. Association for Computational Linguistics and Chinese Language Processing (ACLCLP), Taiwan, 2012.
- [103] **Fai Wong**, Francisco Oliveira, Sam Chao, and Chi-Wai Tang. "Handheld Machine Translation System Based on Constraint Synchronous Grammar". In: *Proceedings of Machine Translation Summit XIII: Papers*. Xiamen, China, Sept. 2011.
- [104] Liang Tian, **Fai Wong**, and Sam Chao. "Word Alignment Using GIZA++ on Windows". In: *Proceedings of Machine Translation Summit XIII: System Presentations*. Xiamen, China, Sept. 2011.
- [105] **Fai Wong** and Sam Chao. "iSentenizer: An incremental sentence boundary classifier". In: *Proceedings of the 6th International Conference on Natural Language Processing and Knowledge Engineering, NLPKE-2010*. IEEE. 2010, pp. 1–7.
- [106] Francisco Oliveira, **Fai Wong**, Iok-Sai Hong, and Ming-Chui Dong. "Parsing extended constraint synchronous grammar in chinese-portuguese machine translation". In: *Proceedings of the International Conference on Computational Processing of the Portuguese Language, PROPOR 2010*. 2010, pp. 62–73.
- [107] **Fai Wong**, Dong-Cheng Hu, Yu-Hang Mao, Ming-Chui Dong, and Yi-Ping Li. "Machine Translation Based on Constraint-Based Synchronous Grammar". In: *Second International Joint Conference on Natural Language Processing, IJCNLP 2005*. 2005.

- [108] Francisco Oliveira, **Fai Wong**, Yiping Li, and Jie Zheng. “Unsupervised word sense disambiguation and rules extraction using non-aligned bilingual corpus”. In: *Proceedings of the International Conference on Natural Language Processing and Knowledge Engineering, NLPKE-2005*. IEEE. 2005, pp. 30–35.
- [109] **Fai Wong**, Dong Cheng Hu, Yu Hang Mao, and Ming Chui Dong. “A Flexible Example Annotation Schema: Translation Corresponding Tree Representation”. In: *COLING 2004: Proceedings of the 20th International Conference on Computational Linguistics*. Geneva, Switzerland: COLING, Aug. 2004, pp. 1079–1085.

## TEACHING AND SUPERVISION

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### 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

### **Visiting Students**

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

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