

# Zhanming (Allan) Jie

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## RESEARCH INTEREST

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Structured Prediction in NLP, Multi-modal Question Answering, Neural Symbolic Reasoning

## EDUCATION

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| <b>Singapore University of Technology and Design</b><br><i>PhD of Computer Science</i> <ul style="list-style-type: none"><li>• Supervisor: Prof. Wei Lu</li><li>• Thesis: “<i>Leveraging Dependency Trees for Structured Prediction</i>” (Best Thesis Award)</li></ul> | 2016 - 2020 |
| <b>The Hong Kong University of Technology and Design</b><br><i>Doctoral Program</i> <ul style="list-style-type: none"><li>• Supervisor: Prof. James She</li></ul>  | 2014 - 2015 |
| <b>University of Electronic Science and Technology of China</b><br><i>Bachelor of Engineering</i> <ul style="list-style-type: none"><li>• GPA - 3.91/4, Department Ranking: 6/193</li></ul>  | 2010 - 2014 |

## PROFESSIONAL EXPERIENCE

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| <b>Senior NLP Scientist, ByteDance AI Lab</b> <ul style="list-style-type: none"><li>• Mentors: Hang Li</li><li>• Research Area: multi-modal QA and symbolic reasoning</li></ul>  | May 2022 – Present<br><i>Singapore</i>       |
| <b>NLP Scientist, ByteDance AI Lab</b> <ul style="list-style-type: none"><li>• Mentors: Hang Li and Wei Lu</li><li>• Research Area: natural language understanding and multi-modal QA</li></ul>  | May 2020 – May 2022<br><i>Singapore</i>      |
| <b>NLP Research Intern, DAMO Academy, Alibaba</b> <ul style="list-style-type: none"><li>• Mentor: Lidong Bing</li><li>• Research Area: Low-resource named entity recognition</li></ul>   | November 2019 – May 2020<br><i>Singapore</i> |
| <b>NLP Research Intern, Allen Institute for Artificial Intelligence</b> <ul style="list-style-type: none"><li>• Supervisor: Pradeep Daisg &amp; Ana Marasovic</li><li>• Research Area: Question Answering with Coreferential Knowledge</li></ul> | June 2019 – Sept 2019<br><i>Washington</i>   |
| <b>Research Intern, Singapore University of Technology and Design</b> <ul style="list-style-type: none"><li>• Mentor: Prof. Wei Lu</li><li>• Research Area: Multilingual Semantic Parsing</li></ul>  | Feb 2014 – May 2014<br><i>Singapore</i>      |
| <b>Research Assistant, Shanghai Jiao Tong University</b> <ul style="list-style-type: none"><li>• Mentor: Prof. Yaohui Jin</li><li>• Research Area: Cyber Attack in Cloud Computing</li></ul>   | Dec 2013 – Feb 2014<br><i>China</i>          |

## PROFESSIONAL SERVICE

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| <b>Structured Prediction Framework</b><br><i>Active Maintainer</i>  | <a href="https://github.com/allanj/pytorch_neural_crf">https://github.com/allanj/pytorch_neural_crf</a> |
| <b>PC/Reviewer for Conference and Journal</b> <ul style="list-style-type: none"><li>• ACL ARR Rolling Review, ACL 2022, ACL 2021, EMNLP 2021, ACL 2020, EMNLP 2020, NLPCC 2020, AAAI 2019, EMNLP 2019, NAACL 2019, EMNLP 2018, PACLIC 2018, IJCNLP 2017, NLPCC 2017</li><li>• IEEE Transactions on Emerging Topics in Computing, Transactions on Asian and Low-Resource Language Information Processing, Natural Language Engineering, Computational Linguistic</li></ul> |   |

## AWARDS

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Best PhD Thesis Award, SUTD	Apr 2020
Student Scholarship Award, AAAI-2017	Feb 2017
SUTD President's Graduate Fellowship, SUTD	2016 – 2020
Research Travel Grant, HKUST	Jul 2015
Postgraduate Studentship, HKUST	2014 – 2015
Outstanding Volunteer, Zhongshan, Guangdong, China	Aug 2014
Excellent Graduation Thesis and Excellent Graduate Student, UESTC	Jul 2014
The Innovation Fund's Project of Oscilloscope High-speed Data Acquisition Channel, UESTC.	Mar 2013
The Third Prize in "UESTC CUP" Mobile Application Design Contest	Mar 2013
First-Class People's Scholarship (Top 6%) UESTC	2012 – 2013
The Second Prize in "Ecovacs" Intelligent Robot Design Contest, UESTC	Oct 2012
Samsung Enterprise Scholarship (Top 3%) UESTC	2011 – 2012
National Inspirational Scholarship (Top 3%) UESTC	2010 – 2011

## PUBLICATIONS

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1. **Zhanming Jie**, Jierui Li, and Wei Lu. "Learning to Reason Deductively: Math Word Problem Solving as Complex Relation Extraction." *In Proceedings of ACL*. 2022.
2. Yuxiang Zhou, Lejian Liao, Yang Gao, **Zhanming Jie** and Wei Lu. "To be Closer: Learning to Link up Aspect with Opinions." *In Proceedings of EMNLP*. 2021.
3. Lu Xu, **Zhanming Jie**, Wei Lu and Lidong Bing. "Better Feature Integration for Named Entity Recognition." *In Proceedings of NAACL*. 2021.
4. Xuefeng Yang, Benhong Wu, **Zhanming Jie**, Yunfeng Liu. "Overview of the NLPCC 2020 Shared Task: AutoIE." *In Proceedings of NLPCC*. 2020.
5. Liying Cheng, Yan Zhang, Dekun Wu, **Zhanming Jie**, Lidong Bing, Wei Lu, Luo Si. "Knowledge Graph Empowered Entity Description Generation." *In Proceedings EMNLP*. 2020.
6. **Zhanming Jie**, and Wei Lu. "Dependency-Guided LSTM-CRF for Named Entity Recognition." *In Proceedings of EMNLP*. 2019.
7. **Zhanming Jie**, Pengjun Xie, Wei Lu, Ruixue Ding and Linlin Li. "Better Modeling of Incomplete Annotations for Named Entity Recognition." *In Proceedings of NAACL*. 2019.
8. **Zhanming Jie**, and Wei Lu. "Dependency-based Hybrid Tree for Semantic Parsing." *In Proceedings of EMNLP*. 2018.
9. Chu Guo, **Zhanming Jie**, Wei Lu and Dario Poletti. "Matrix Product Operators for Sequence to Sequence Learning." *In Physical Review E*. 2018.
10. **Zhanming Jie**, Aldrian Obaja Muis, and Wei Lu. "Efficient Dependency-Guided Named Entity Recognition." *In Proceedings of AAAI*. 2017.
11. Ming Cheung, James She and **Zhanming Jie**. "Connection Discovery using Big Data of User Shared Images in Social Media." *IEEE Transactions on Multimedia*, 17(9), 1417-1428. 2015.
12. **Zhanming Jie**, Ming Cheung and James She. "A Cloud-assisted Framework for Bag-of-Feature Tagging in Social Networks." *In Proceedings of IEEE NCCA*. 2015.
13. Alvin Junus, Ming Cheung, James She, **Zhanming Jie**. "Community-Aware Prediction of Virality Timing Using Big Data of Social Cascades" *In Proceedings of IEEE BigDataService*. 2015.
14. **Zhanming Jie**, and Wei Lu. "Multilingual Semantic Parsing: Parsing Multiple Languages into Semantic Representations." *In Proceedings of COLING*. 2014.

## MENTORING (4 PAPERS ACCEPTED)

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<b>Trung Loung</b> , National University of Singapore	June 2021 - Present
<b>Zichu Fei</b> , Fudan University	June 2021 - Present
<b>Jierui Li</b> , University of Electronic Science and Technology and China	Nov 2020 - Jan 2021
<b>Lu Xu</b> , Singapore University of Technology and Design	2020 – 2021
<b>Liyang Cheng</b> , Singapore University of Technology and Design	2020 – 2021
<b>Yuxian Zhou</b> , Beijing Institute of Technology	2020 – 2021
<b>Huiming Wang</b> , Zhejiang University	2018 – 2019