

Boyuan Pan

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RESEARCH INTERESTS

The general areas and applications of machine learning and natural language processing (NLP), especially the recent developments in transfer learning, common sense reasoning, reinforcement learning and adversarial learning to work towards the goal of the combination of language understanding and generation.

EDUCATION

Zhejiang University, Hangzhou, China Ph.D. (expected June 2021) in Computer Science Advisers: Prof. Xiaofei He & Prof. Deng Cai	09/2016 – <i>present</i>
Zhejiang University, Hangzhou, China B.S. in Mathematics and Applied Mathematics, GPA: 3.82/4	09/2012 – 06/2016
UCLA, Los Angeles, USA Summer School: Film Making & Economics	08/2014 – 09/2014

EXPERIENCES

Research Intern Alibaba Group, Hangzhou, China • Video searching (query planning) at the Youku website.	12/2020 – 06/2021
Visiting Scholar University of Illinois Urbana-Champaign (UIUC), Urbana, USA Advisor: Prof. Bo Li • Projects related to dialog and text generation and analyzing the robustness of such systems.	09/2019 – 08/2020
Research Intern Alibaba DAMO Academy, Hangzhou, China • Project of the Artificial Intelligence Center-City Brain.	07/2019 – 09/2019
Visiting Scholar Ohio State University (OSU), Columbus, USA Advisor: Prof. Huan Sun • Projects of conversation question answering and conversation question generation.	11/2018 – 05/2019
Research Intern Eigen Technology, Hangzhou, China • Project of machine reading comprehension. • Achievement: Rank #2 of the Stanford Question Answering Dataset (SQuAD) leaderboard (Model's name: MEMEN).	11/2016 – 09/2017

HONORS & AWARDS

CETC Scholarship	2020
ZJU Doctoral Academic Fellowship (Top 1%)	2019
National Scholarship	2019
He Zhijun Scholarship	2019
NeurIPS Traveling Award	2018
Outstanding Postgraduate Student Award	2017, 2018, 2019, 2020
Outstanding Graduate of Zhejiang University	2016

PUBLICATIONS

Yazheng Yang*, **Boyuan Pan***, Deng Cai, Huan Sun. “TopNet: Learning from Neural Topic Model to Generate Long Stories.” In *The 2021 ACM SIGKDD Conference on Knowledge Discovery and Data Mining*. (**KDD 2021**)(**Research Track**)

Boyuan Pan, Yazheng Yang, Bo Li, Deng Cai. “Self-Supervised Attention Flow for Dialogue State Tracking.” In *Elsevier Neurocomputing*. (**Neurocomputing**)

Boxin Wang, Hengzhi Pei, **Boyuan Pan**, Qian Chen, Shuohang Wang, Bo Li. “T3: Tree-Autoencoder Regularized Adversarial Text Generation for Targeted Attack.” In *The 2020 Conference on Empirical Methods in Natural Language Processing*. (**EMNLP 2020**)

Boyuan Pan, Yazheng Yang, Kaizhao Liang, Bhavya Kailkhura, Zhongming Jin, Xian-sheng Hua, Deng Cai, Bo Li. “Adversarial Mutual Information for Text Generation.” In *Thirty-seventh International Conference on Machine Learning*. (**ICML 2020**)

Boxin Wang, **Boyuan Pan**, Xin Li, Bo Li. “Towards Evaluating the Robustness of Chinese BERT Classifiers.” In *arXiv preprint arXiv:2004.03742*, 2020.

Boyuan Pan, Yazheng Yang, Zhou Zhao, Yueting Zhuang, Deng Cai. “Bi-Decoder Augmented Network for Neural Machine Translation.” In *Elsevier Neurocomputing*. (**Neurocomputing**)

Boyuan Pan, Yazheng Yang, Yueting Zhuang, Deng Cai. “Discriminate and Reconstruct: Learning from Language Model to Answer Keyword Questions.” In *The second China Symposium on Cognitive Computing and Hybrid Intelligence*. (**CCHI 2019**)(**Oral**)

Boyuan Pan, Hao Li, Ziyu Yao, Deng Cai, Huan Sun. “Reinforced Dynamic Reasoning for Conversational Question Generation.” In *Proceedings of the 57th Annual Meeting of the Association for Computational Linguistics*. (**ACL 2019**)

Boyuan Pan, Yazheng Yang, Hao Li, Zhou Zhao, Yueting Zhuang, Deng Cai, Xiaofei He. “MacNet: Transferring Knowledge from Machine Comprehension to Sequence-to-Sequence Models.” In *Thirty-second Conference on Neural Information Processing Systems*. (**NeurIPS 2018**)

Boyuan Pan, Yazheng Yang, Zhou Zhao, Yueting Zhuang, Deng Cai, Xiaofei He. “Discourse Marker Augmented Network with Reinforcement Learning for Natural Language Inference.” In *Proceedings of the 56th Annual Meeting of the Association for Computational Linguistics*. (**ACL 2018**)(**Oral**)

Boyuan Pan, Hao Li, Zhou Zhao, Deng Cai, Xiaofei He. “Keyword-based Query Comprehending via Multiple Optimized-Demand Augmentation.” In *arXiv preprint arXiv:1711.00179*, 2017.

Boyuan Pan, Hao Li, Zhou Zhao, Bin Cao, Deng Cai, Xiaofei He. “MEMEN: Multi-layer Embedding with Memory Networks for Machine Comprehension.” In *arXiv preprint arXiv:1707.09098*, 2017. (**SQuAD Technical Report**)

Xin Guo, **Boyuan Pan**, Deng Cai, Xiaofei He. “Robust Asymmetric Bayesian Adaptive Matrix

Factorization.” In *Proceedings of the 26th International Joint Conference on Artificial Intelligence*. (IJCAI 2017)

INVITED TALKS

September 2019: The second China Symposium on Cognitive Computing and Hybrid Intelligence (CCHI 2019), Xi’an, China.

June 2019: “Deep learning and transfer learning on natural language generation”, Alibaba Group, Hangzhou, China.

November 2018: The 16th China Symposium on Machine Learning Applications (MLA 2018), Nanjing, China.

PROFESSIONAL SERVICES

Program Committee Member: AAAI (2018), NeurIPS (2019), ACL (2018, 2019, 2020), EMNLP (2020), NAACL (2021)

Journal Reviewer: IEEE TNNLS