

Bo-Ru (Roy) Lu

University of Washington
Seattle, WA

Phone: +1 510-424-1911
Email: roylu@uw.edu
Homepage: nlp.borulu.com

Education

- **University of Washington**, Seattle, WA. Sep. 2018 - present
Ph.D. in Electrical & Computer Engineering.
Advisor: Dr. Mari Ostendorf.
Overall GPA: 3.89/4.00.
Research Interests: dialogue structure modeling, dialogue pretraining, dialogue generation.
- **National Taiwan University**, Taipei, Taiwan. Sep. 2016 - Jul. 2018
M.S. in Communication Engineering.
Advisors: Dr. Lin-Shan Lee and Dr. Hung-Yi Lee.
Overall GPA: 4.00/4.00, CS-relevant GPA: 4.00/4.00.
- **National Taiwan University**, Taipei, Taiwan. Sep. 2012 - Jun. 2016
B.S. in Electrical Engineering.
Overall GPA: 3.65/4.00, Last 60 GPA: 4.00/4.00, CS-relevant GPA: 4.00/4.00.

Publications

- DIALGEN: Collaborative Human-LM Generated Dialogues for Improved Understanding of Human-Human Conversations.
Arxiv 2023.
Bo-Ru Lu, Nikita Haduong, Chia-Hsuan Lee, Zeqiu Wu, Hao Cheng, Paul Koester, Jean Utke, Tao Yu, Noah A. Smith, Mari Ostendorf.
- Unsupervised Learning of Hierarchical Conversation Structure.
In Findings of the Conference on Empirical Methods in Natural Language Processing (EMNLP Findings), 2022.
Bo-Ru Lu, Yushi Hu, Hao Cheng, Noah A. Smith, Mari Ostendorf.
- DIALKI: Knowledge Identification in Conversational Systems through Dialogue-Document Contextualization.
In Proc. Conf. Empirical Methods in Natural Language Processing (EMNLP), 2021.
Zeqiu Wu*, Bo-Ru Lu*, Hannaneh Hajishirzi, Mari Ostendorf. *Equal contribution.
- A Multi-Passage Knowledge Selector for Information-Seeking Dialogues.
In ACL-IJCNLP Workshop on Document-grounded Dialogue and Conversational Question Answering (DialDoc), 2021. (non-archival system description paper).
1st prize of DialDoc Shared Task subtask 1.
Zeqiu Wu*, Bo-Ru Lu*, Hannaneh Hajishirzi, Mari Ostendorf. *Equal contribution.
- Order-Preserving Abstractive Summarization for Spoken Content Based on Connectionist Temporal Classification.
In Proc. Conf. Int. Speech Communication Assoc. (INTERSPEECH), 2017.
Bo-Ru Lu, Frank Shyu, Yun-Nung Chen, Hung-Yi Lee, Lin-Shan Lee.

Research Experiences

- Natural Language Processing Group, University of Washington
Research Assistant. Sep. 2018 - Present
Unsupervised dialogue structure modeling.
- Alexa AI, Amazon.
Applied Scientist Intern. Mar. 2022 - Sep. 2022
Knowledge-grounded response generation for information-seeking dialogues.
- Natural Language Understanding Team, Google Research.
Research Intern. Jun. 2021 - Sep. 2021
Multimodal representation learning.
- Deep Learning Team, Microsoft Research.
Research Intern. Jun. 2020 - Sep. 2020
Weakly-supervised user question discovery.
- Natural Language Processing Team, Apple.
Machine Learning Intern. Jan. 2018 - Apr. 2018
Sequence-to-sequence modeling for iOS QuickPath (launched on iOS₁₃).
- Speech Processing Lab, National Taiwan University.
Research Assistant. Feb. 2015 - Jul. 2018
Sequence-to-sequence models for text and spoken document summarization.

Awards and Honors

- Ranked the 1st place in the shared task 1 at 1st DialDoc workshop, ACL-IJCNLP 2021. Jun. 2021
- 2018 Foxconn Technology Award, Foxconn Education Foundation Jan. 2019
- Government Scholarship for Studying Abroad, Ministry of Education, Taiwan. Sep. 2018
- Long-Term Fellowship for Cultivating Elite Students, Hsing Tian Kong, Taiwan. Dec. 2017
Fellowship to support elite students with the acceptance rate of 0.1%.
- Advanced Speech Technologies Scholarship, National Taiwan University, Taiwan. Sep. 2017
Recognizes students with excellent academic performance in speech processing (3 recipients in the year).
- International Speech and Communication Association Student Travel Grants, ISCA. Aug. 2017
- NTU Electrical Engineering 1960 Alumni Scholarship, National Taiwan University, Taiwan. Sep. 2015
Recognizes undergraduates in EE with excellent academic performance (2 recipients a year).

Skills

- **Languages:** Mandarin (native), English (professional working proficiency).
- **Programming Languages:** Python, Shell Script, Javascript, C/C++.
- **Libraries:** PyTorch, Tensorflow, Scikit-learn, Numpy, Pandas, Huggingface.
- **Tools:** Git, Vim, HTCondor, L^AT_EX, Google Cloud, Azure.