Bo-Ru (Roy) Lu

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Education

- **University of Washington**, Seattle, WA.   Sep. 2018 - present
  Ph.D. in Electrical & Computer Engineering.
  Advisor: Dr. Mari Ostendorf.
  Overall GPA: 3.93/4.00.
  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

- Comparing Pipeline and Joint Models for Knowledge-grounded Dialogue Response Generation.
  Submitted to ICASSP 2023.
  Bo-Ru Lu, Di Jin, Behnam Hedayatnia, Devamanyu Hazarika, Mahdi Namazifar, Yang Liu, Dilek Hakkani-Tür.

- 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 Techonology 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, LaTeX, Google Clould, Azure.