

## Yi-Lin Tuan

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**ACADEMIC BACKGROUND** *Ph.D. Computer Science* 2019-present  
University of California, Santa Barbara  
• Advised by prof. William Yang Wang.

*B.S. Electrical Engineering* 2013-2017  
National Taiwan University  
• Advised by prof. Lin-shan Lee, prof. Hung-yi Lee, prof. Yun-Nung Chen.

**CONFERENCE PAPERS** See also [my google scholar](#) page. \* indicates equal contribution.

- Alon Albalak, **Yi-Lin Tuan**, Pegah Jandaghi, Connor Pryor, Luke Yoffe, Deepak Ramachandran, Lise Getoor, Jay Pujara, William Yang Wang. “FETA: A Benchmark for Few-Sample Task Transfer in Open-Domain Dialogue”, To Appear: EMNLP (long paper), 2022
- Wenda Xu, **Yi-Lin Tuan**, Yujie Lu, Michael Saxon, Lei Li, William Yang Wang. “Not All Errors are Equal: Learning Text Generation Metrics using Stratified Error Synthesis”, To Appear: Findings of EMNLP (long paper), 2022
- **Yi-Lin Tuan**, Sajjad Beygi, Maryam Fazel-Zarandi, Qiaozi Gao, Alessandra Cervone, and William Yang Wang. “Towards Large-Scale Interpretable Knowledge Graph Reasoning for Dialogue Systems”. In: Findings of ACL (long paper), 2022
- Kai Nakamura, Sharon Levy, **Yi-Lin Tuan**, Wenhua Chen, and William Yang Wang. “HybridDialogue: An Information-Seeking Dialogue Dataset Grounded on Tabular and Textual Data”. In: Findings of ACL (long paper), 2022
- Lucas Relic, Bowen Zhang, **Yi-Lin Tuan**, Michael Beyeler, “Deep Learning-Based Perceptual Stimulus Encoder for Bionic Vision”. In: ACM Augmented Humans, 2022
- **Yi-Lin Tuan**, Connor Pryor, Wenhua Chen, Lise Getoor, and William Yang Wang. “Local Explanation of Dialogue Response Generation”. In: NeurIPS, 2021
- **Yi-Lin Tuan**, Ahmed El-Kishky, Adi Renduchintala, Vishrav Chaudhary, Francisco Guzman, and Lucia Specia. “Quality Estimation without Human-labeled Data”. In: EACL (short paper), 2021
- **Yi-Lin Tuan**, Yun-Nung Chen, and Hung-yi Lee. “DyKgChat: Benchmarking Dialogue Generation Grounding on Dynamic Knowledge Graphs”. In: EMNLP-IJCNLP (long paper), 2019
- Feng-Guang Su\*, Aliyah R Hsu\*, **Yi-Lin Tuan**, and Hung-Yi Lee. “Personalized Dialogue Response Generation Learned from Monologues”. In: Interspeech, 2019
- Che-Ping Tsai\*, **Yi-Lin Tuan\***, and Lin-shan Lee. “Transcribing lyrics from commercial song audio: the first step towards singing content processing”. In: ICASSP, 2018

## JOURNAL ARTICLES

- **Yi-Lin Tuan** and Hung-Yi Lee. “Improving conditional sequence generative adversarial networks by stepwise evaluation”. In: IEEE/ACM Transactions on Audio, Speech, and Language Processing 27.4 (2019), pp. 788–798

## PREPRINT

- **Yi-Lin Tuan**, Zih-Yun Chiu, William Yang Wang. “Atomized Deep Learning Models” In: arXiv preprint arXiv:2210.03728, 2022
- Zih-Yun Chiu\*, **Yi-Lin Tuan\***, William Yang Wang, Michael Yip. “Knowledge-Grounded Reinforcement Learning” In: arXiv preprint arXiv:2210.03729, 2022
- Alon Albalak, Varun Embar, **Yi-Lin Tuan**, Lise Getoor, and William Yang Wang. “D-REX: Dialogue Relation Extraction with Explanations”. In: 4th Workshop on NLP for ConvAI; arXiv preprint arXiv:2109.05126, 2021
- **Yi-Lin Tuan**, Wei Wei, and William Yang Wang. “Knowledge Injection into Dialogue Generation via Language Models”. In: arXiv preprint arXiv:2004.14614v2, 2021
- Zih-Yun Chiu, **Yi-Lin Tuan**, Hung-yi Lee, and Li-Chen Fu. “Parallelized Reverse Curriculum Generation”. In: arXiv preprint arXiv:2108.02128, 2018
- **Yi-Lin Tuan\***, Jinzhi Zhang\*, Yujia Li, and Hung-yi Lee. “Proximal Policy Optimization and its Dynamic Version for Sequence Generation”. In: arXiv preprint arXiv:1808.07982, 2018.

## EMPLOYMENT HISTORY

*Research Intern* 2022 Summer  
Meta, Menlo Park

- Host by Wenhan Xiong
- Research on efficient model architecture for natural language generation based on state-space model.

*Applied Scientist Intern* 2021 Summer  
Amazon Alexa AI, Boston (remote)

- Host by Sajjad Beygi, Maryam Fazel-Zarandi, Qiaozi Gao, Alessandra Cervone
- Worked on knowledge and logical reasoning of dialogue systems.

*Research Intern* 2020 Summer  
Facebook AI, Menlo Park (remote)

- Host by Ahmed El-Kishky, Adithya Renduchintala, Vishrav Chaudhary, Francisco Guzmán, Lucia Specia
- Worked on quality estimation of machine translation. Compared with work using human annotations, we can achieve comparable or even better quality estimation performance using data synthesis method.

*Research Assistant* 2017-2019  
National Taiwan University, Taipei

- Advised by Hung-yi Lee, Yun-Nung Chen, Lin-shan Lee
- Worked on generative adversarial networks and reinforcement learning in conditional sequence generation for computational efficiency, optimization, and application.
- Worked on temporal knowledge graph-grounded dialogue generation and collected needed conversational TV series data.
- Worked on lyrics recognition and collected vocal-only songs data for transcribing tasks.

## HONORS & AWARDS

- *Best Poster Award* for “research on Deep Learning for Bionic Vision”, ACM Augmented Humans, 2022.
- *Best Paper Award* for “research on dynamic knowledge graph-grounded dialogue generation”, South California NLP Symposium (SoCalNLP), 2019.
- *Presidential Award (GPA rank 1/169)*, National Taiwan University, 2014

## TALKS

- Invited Talk at Google AI, “Local Explanation of Dialogue Response Generation”, Nov 2021
- Contributed talk at SoCalNLP, “Dynamic Knowledge-Grounded Dialogue Generation through Walking on the Graph”, Sep 2019
- Invited talk (on behalf of professor William Wang) at EMNLP FEVER workshop, “Fact Verification with Semi-Structured Knowledge”, Nov 2019
- Invited talk at ASUS, “Dialogue Response Generation Grounded on Dynamic Knowledge Graphs”, 2019

## ACADEMIC SERVICES

- Served as reviewer at EMNLP 2022.
- Served as reviewer at AAAI 2021.
- Served as second reviewer for conferences IJCAI 2019, EMNLP 2019-2018, ACL2018.
- Served as second reviewer for Journals TASLP, CSL, APSIPA, TACL, CSUR.

## TEACHING EXPERIENCE

- *Natural Language Processing (CS190I)*, UCSB Winter 2022  
Assisted professor William Yang Yang, core undergraduate class on the fundamentals of natural language processing.
- *Machine Learning and Having it Deep and Structured (CommE 5045)*, NTU Spring 2017  
Assisted professor Hung-yi Lee, core graduate class on the fundamentals of machine learning and deep learning.