Yi-Lin Tuan

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Education

- **University of California, Santa Barbara**   *from Sep. 2019*
  Ph.D. in Computer Science
  Advisor: William Yang Wang

- **National Taiwan University**   *Sep. 2013 - June. 2017*
  B.S. in Electrical Engineering
  Advisors: Lin-shan Lee, Hung-yi Lee, Yun-Nung Chen

Conference Papers

[1] **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).

[2] Kai Nakamura, Sharon Levy, **Yi-Lin Tuan**, Wenhu Chen, and William Yang Wang. "HybriDialogue: An Information-Seeking Dialogue Dataset Grounded on Tabular and Textual Data". In: *Findings of ACL (long paper)* (2022).

[3] **Yi-Lin Tuan**, Connor Pryor, Wenhu Chen, Lise Getoor, and William Yang Wang. "Local Explanation of Dialogue Response Generation". In: *NeurIPS* (2021).

[4] **Yi-Lin Tuan**, Ahmed El-Kishky, Adi Renduchintala, Vishrav Chaudhary, Francisco Guzmán, and Lucia Specia. "Quality Estimation without Human-labeled Data". In: *EACL (short paper)* (2021).

[5] **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).

[6] Feng-Guang Su*, Aliyah R Hsu*, **Yi-Lin Tuan**, and Hung-Yi Lee. "Personalized Dialogue Response Generation Learned from Monologues". In: *Interspeech* (2019).

[7] 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.

Jornal Articles

[8] **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 and Under Review

[9] Alon Albalak, Varun Embar, **Yi-Lin Tuan**, Lise Getoor, and William Yang Wang. "D-REX: Dialogue Relation Extraction with Explanations". In: *arXiv preprint arXiv:2109.05126* (2021).

[10] **Yi-Lin Tuan**, Wei Wei, and William Wang. "Knowledge Injection into Dialogue Generation via Language Models". In: *arXiv preprint arXiv:2004.14614v2* (2021).

[11]   Zih-Yun Chiu, **Yi-Lin Tuan**, Hung-yi Lee, and Li-Chen Fu. "Parallelized Reverse Curriculum Generation". In: *arXiv preprint arXiv:2108.02128* (2018).

[12]   **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).

Experience

- **Amazon Alexa AI** *Applied Scientist Intern*   *June 2021 - Sep. 2021*
  Advisors: Sajjad Beygi, Maryam Fazel-Zarandi, Qiaozi Gao, Alessandra Cervone

  ○ Worked on knowledge and logical reasoning of dialogue systems [1].

- **Facebook** *Research Intern*   *June 2020 - Sep. 2020*
  Advisors: 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 [4].

- **National Taiwan University** *Research Assistant*   *Sep. 2017 - Aug. 2019*
  Advisors: 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. [8, 6, 12]
  ○ Worked on temporal knowledge graph-grounded dialogue generation and collected needed conversational TV series data. [5]
  ○ Worked on lyrics recognition and collected vocal-only songs data for transcribing tasks. [7]

Teaching Experience

- CS190I Natural Language Processing, UC Santa Barbara, Winter 2022
- CommE 5045 Machine Learning and Having it Deep and Structured, NTU, Spring 2017

Service

- **Reviewer/Second Reviewer:**
  AAAI2021, IJCAI 2019, EMNLP (2019-2018), ACL2018, TASLP, CSL, APSIPA, TACL, CSUR

Talks

- Invited Reading Group Talk "Local Explanation of Dialogue Response Generation", Google AI, 2021
- Contributed talk "Dynamic Knowledge-Grounded Dialogue Generation through Walking on the Graph", SoCalNLP19
- Invited talk on behalf of William Wang "Fact Verification with Semi-Structured Knowledge", FEVER workshop, EMNLP2019

Awards & Honors

- **Best Paper Award SAP, SoCalNLP19** [5]   *Sep. 2019*
- **Outstanding Achievement Award (Innovate Asia Design Contest, Altera)** *Aug. 2016*
  Awarded for a designed FPGA mobile 3D projector.
- **NTU Electrical Engineering 1960 Alumni Scholarship**   *2014 and 2016*
  Awarded twice one-year scholarship.
- **Presidential Award (rank 1/169), National Taiwan University**   *2014*

Skills

- **Programming Languages**: Python, C/C++/C#, Shell Script, Matlab, System Verilog
- **Tools**: Pytorch, Tensorflow, Theano, Kaldi, Praat, Git, LaTeX