YUSHI HU

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EDUCATION

University of Washington   Seattle, WA
Ph.D. in Electrical & Computer Engineering   2021 – Present
Advisors: Mari Ostendorf, Noah A. Smith
Research interests: Large Multimodal Models, Reinforcement Learning from Human (AI) Feedback

University of Chicago   Chicago, IL
B.S. in Computer Science, Mathematics, B.A. in Economics   2017 – 2021
summa cum laude, Phi Beta Kappa

PREPRINT & PUBLICATIONS

* indicates equal contribution

1. Fine-Grained Human Feedback Gives Better Rewards for Language Model Training.
   Wu, Z.*, **Hu, Y.***, Shi, W., Dziri, N., Suhr, A., Ammanabrolu, P., Smith, N.A., Ostendorf, M. and Hajishirzi, H.
   NeurIPS 2023 (spotlight).

2. TIFA: Accurate and Interpretable Text-to-Image Faithfulness Evaluation with Question Answering.
   Yushi Hu, Benlin Liu, Jungo Kasai, Yizhong Wang, Mari Ostendorf, Ranjay Krishna, Noah A. Smith.
   ICCV 2023.

3. PromptCap: Prompt-Guided Image Captioning for VQA with GPT-3.
   Yushi Hu*, Hang Hua*, Zhengyuan Yang, Weijia Shi, Noah A Smith, Jiebo Luo.
   ICCV 2023.

4. One Embedder, Any Task: Instruction-Finetuned Text Embeddings.
   H. Su*, W. Shi*, J. Kasai, Y. Wang, **Y. Hu**, M. Ostendorf, W. Yih, N. Smith, L. Zettlemoyer, T. Yu.
   ACL 2023 Findings.

5. Binding Language Models in Symbolic Languages.
   Z. Cheng*, T. Xie*, P. Shi, C. Li, R. Nadkarni, **Y. Hu**, C. Xiong, D. Radev, M. Ostendorf, L. Zettlemoyer, N. Smith, T. Yu.
   ICLR 2023 (spotlight).

6. Unsupervised Learning of Hierarchical Conversation Structure.
   Bo-Ru Lu, **Yushi Hu,** Hao Cheng, Noah A. Smith, Mari Ostendorf.
   EMNLP 2022 Findings.

7. In-Context Learning for Dialogue State Tracking.
   Yushi Hu, Chia-Hsuan Lee, Tianbao Xie, Tao Yu, Noah A. Smith, Mari Ostendorf.
   EMNLP 2022 Findings.

8. Acoustic Span Embeddings for Multilingual Query-by-Example Search.
   Yushi Hu, Shane Settle, and Karen Livescu.
   IEEE Spoken Language Technology Workshop (SLT 2021).

9. Multilingual Jointly Trained Acoustic and Written Word Embeddings.
   Yushi Hu, Shane Settle, and Karen Livescu.
   Interspeech 2020.

RESEARCH EXPERIENCE

University of Washington   Seattle, WA
Graduate Research Assistant, UW NLP group   Sep 2021 – Present
Advisor: Prof. Mari Ostendorf, Prof. Noah A. Smith

Toyota Technological Institute at Chicago   Chicago, IL
Research Assistant, Speech and Language group   Sep 2019 – Present
Advisor: Prof. Karen Livescu

INDUSTRY EXPERIENCE

Google Research   Mountain View, CA
Student researcher   Jun 2023 – Sep 2023
- Large Multimodal Models, Text-to-Image Generation

Tencent AI Lab (Seattle)   Bellevue, WA
Research Intern   Jun 2022 – Sep 2022
- Style-controllable text-to-speech synthesis. Self-supervised learning of prosody.

AWARDS & HONORS

University of Washington Top Scholar Recruitment Award	2021
University of Washington ECE PhD Fellowship	2021
summa cum laude, University of Chicago	2021
Gary Becker Scholar, University of Chicago	2020-2021
ACM-ICPC Mid-Central Regional Finalist	2019
1st Prize, 33rd Chinese Physics Olympiad	2016
2nd Place, China Team Captain, 29th International Young Physicists' Tournament	2016

SKILLS

Programming Languages (proficient): Python, C/C++, MATLAB, bash
Programming Languages (capable): Java, JavaScript, Node.js
Frameworks and tools: PyTorch, TensorFlow, HuggingFace, OpenCV, NLTK, Spark
Database Management: SQL, Pandas
Natural Languages: Mandarin (native), English (fluent)