Zi-Yi Dou

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EDUCATION

University of California, Los Angeles — Aug. 2020 – Present

Ph.D. Student in Computer Science
- Transferred from University of Southern California (Aug. 2020 – Aug. 2021)
- Advisor: Nanyun Peng

Carnegie Mellon University — Aug. 2018 – Aug. 2020

M.S. in Language Technologies
- Advisor: Graham Neubig
- GPA: 4.01/4.33

Nanjing University — Sep. 2014 – Jul. 2018

B.S. in Computer Science, Minor in Statistics
- National Elite Program, Kuang Yaming Honors School
- Exchange student at UC Berkeley, worked with Prof. Joseph E. Gonzalez (Fall 2017)
- GPA: 91.12/100.0, Ranking: 1/18

INTERNSHIPS

Meta — Jun. 2024 – Present

Research Intern at FAIR Perception
- Peers: Pengchuan Zhang, Kate Saenko, Shoubhik Debnath, Didac Suris Coll-Vinent, Nicolas Carion
- Worked on grounded visual reasoning for Llama

Meta — Jun. 2023 – Dec. 2023

Research Intern at FAIR Multimodal Foundations
- Peers: Fu-Jen Chu, Kris Kitani, Xitong Yang, Tushar Nagarajan, Huiyu Wang, Jing Huang
- Worked on egocentric video-language pretraining

Microsoft — May 2021 – Sep. 2022

Research Intern at Project Florence-Vision and Language
- Mentor: Zhe Gan
- Worked on vision-language pretraining and its applications in object detection/segmentation

Tencent AI Lab — Feb. 2018 – Aug. 2018

Research Intern at the Machine Translation Team
- Mentor: Zhaopeng Tu
- Worked on improving Transformers for neural machine translation

PUBLICATIONS

- **Zi-Yi Dou**, Xitong Yang, Tushar Nagarajan, Huiyu Wang, Jing Huang, Nanyun Peng, Kris M. Kitani, and Fu-Jen Chu, *"Unlocking Exocentric Data for Egocentric Video Representation Learning"*, Preprint.

- Wenbo Hu, **Zi-Yi Dou**, Liunian Harold Li, Amita Kamath, Nanyun Peng, and Kai-Wei Chang, *"MQT-LLaVA: Matryoshka Query Transformer for Large Vision-Language Models"*, NeurIPS 2024.

- **Zi-Yi Dou**, Cheng-Fu Yang, Xueqing Wu, Kai-Wei Chang, Nanyun Peng, *"Re-ReST: Reflection-Reinforced Self-Training for Language Agents"*, EMNLP 2024.

- Liunian Harold Li*, **Zi-Yi Dou***, Nanyun Peng, and Kai-Wei Chang, *"DesCo: Learning Object Recognition with Rich Language Descriptions"*, NeurIPS 2023. CVPR OmniLabel 2023 Challenge Winner (1st place).

- Xueyan Zou*, **Zi-Yi Dou***, Jianwei Yang*, Zhe Gan, Linjie Li, Chunyuan Li, Xiyang Dai, Harkirat Behl, Jianfeng Wang, Lu Yuan, Nanyun Peng, Lijuan Wang, Yong Jae Lee, and Jianfeng Gao, *"Generalized Decoding for Pixel, Image, and Language"*, CVPR 2023.

- **Zi-Yi Dou**, Feng Gao, and Nanyun Peng *"Masked Path Modeling for Vision-and-Language Navigation"*, EMNLP 2023 Findings.

- Te-Lin Wu*, **Zi-Yi Dou***, Qingyuan Hu*, Yu Hou, Nischal Reddy Chandra, Marjorie Freedman, Ralph M. Weischedel, and Nanyun Peng *"ACQUIRED: A Dataset for Answering Counterfactual Questions In Real-Life Videos"*, EMNLP 2023.

- **Zi-Yi Dou***, Aishwarya Kamath*, Zhe Gan*, Pengchuan Zhang, Jianfeng Wang, Linjie Li, Zicheng Liu, Ce Liu, Yann LeCun, Nanyun Peng, Jianfeng Gao and Lijuan Wang, *"Coarse-to-Fine Vision-Language Pre-training with Fusion in the Backbone"*, NeurIPS 2022.

- **Zi-Yi Dou**, Yichong Xu, Zhe Gan, Jianfeng Wang, Shuohang Wang, Lijuan Wang, Chenguang Zhu, Nanyun Peng, Zicheng Liu and Michael Zeng, *"An Empirical Study of Training End-to-End Vision-and-Language Transformers"*, CVPR 2022.

- **Zi-Yi Dou** and Nanyun Peng, *"FOAM: A Follower-aware Speaker Model for Vision-and-Language Navigation"*, NAACL 2022.

- **Zi-Yi Dou** and Nanyun Peng, *"Improving Pre-trained Vision-and-Language Embeddings for Phrase Grounding"*, EMNLP 2021.

- **Zi-Yi Dou** and Graham Neubig, *"Word Alignment by Fine-tuning Embeddings on Parallel Corpora"*, EACL 2021.

- Yixin Liu, **Zi-Yi Dou** and Pengfei Liu, *"RefSum: Refactoring Neural Summarization"*, NAACL 2021.

- **Zi-Yi Dou**, Pengfei Liu, Hiroaki Hayashi, Zhengbao Jiang and Graham Neubig, *"GSum: A General Framework for Guided Neural Abstractive Summarization"*, NAACL 2021.

- **Zi-Yi Dou**, Antonios Anastasopoulos and Graham Neubig, *"Dynamic Data Selection and Weighting for Iterative Back-Translation"*, EMNLP 2020.

- **Zi-Yi Dou**, Sachin Kumar and Yulia Tsvetkov, *"A Deep Reinforced Model for Zero-Shot Cross-Lingual Summarization with Bilingual Semantic Similarity Rewards"*, ACL 2020 WNGT.

- **Zi-Yi Dou**, Junjie Hu, Antonios Anastasopoulos and Graham Neubig, *"Unsupervised Domain Adaptation for Neural Machine Translation with Domain-Aware Feature Embeddings"*, EMNLP 2019.

- **Zi-Yi Dou**, Keyi Yu and Antonios Anastasopoulos, *"Investigating Meta-Learning Algorithms for Low-Resource Natural Language Understanding Tasks"*, EMNLP 2019.

- Graham Neubig, **Zi-Yi Dou**, Junjie Hu, Paul Michel, Danish Pruthi, Xinyi Wang and John Wieting, *"compare-mt: A Tool for Holistic Comparison of Language Generation Systems"*, NAACL 2019 Demo. Best Demo Runner-up.

- **Zi-Yi Dou**, Zhaopeng Tu, Xing Wang, Longyue Wang, Shuming Shi and Tong Zhang, *"Dynamic Layer Aggregation for Neural Machine Translation with Routing-by-Agreement"*, AAAI 2019.

- **Zi-Yi Dou**, Zhaopeng Tu, Xing Wang, Shuming Shi and Tong Zhang, *"Exploiting Deep Representations for Neural Machine Translation"*, EMNLP 2018.

- **Zi-Yi Dou**, Zhi-Hao Zhou and Shujian Huang, *"Unsupervised Bilingual Lexicon Induction via Latent Variable Models"*, EMNLP 2018.

- Xin Wang, Fisher Yu, **Zi-Yi Dou**, Trevor Darrel and Joseph E. Gonzalez, *"SkipNet: Learning Dynamic Routing in Convolutional Networks"*, ECCV 2018.

- **Zi-Yi Dou**, *"Capturing User and Product Information for Document Level Sentiment Analysis with Deep Memory Network"*, EMNLP 2017.

AWARDS

JPMC PhD Fellowship	July 2024
UCLA Outstanding Graduate Student Research Award	May 2023
NeurIPS Scholar Award	Oct. 2022, Oct. 2023
Amazon PhD Fellowship	Sep. 2022
NAACL Best System Demonstration Runner-up	Jun. 2019
AAAI Scholar Award	Jan. 2019
Nanjing University Outstanding Graduate Award	Jul. 2018
China National Scholarship	Sep. 2017

SERVICE

Reviewer for ACL, EMNLP, NAACL, ACL Rolling Review, COLM, ICML, NeurIPS, ICLR, CVPR, ICCV, ECCV, AAAI
Area Chair for ACL, EMNLP, ACL Rolling Review