Da Yin

University of California, Los Angeles (UCLA) UCLA NLP Group

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Education

University of California, Los Angeles (UCLA)

Sept 2020 - Present

- CS Ph.D. Candidate
 - Amazon PhD Fellow (2023)
 - Advised by Prof. Kai-Wei Chang

Peking University

2016 - 2020

- Undergraduate Student
 - Advised by Prof. Xiaojun Wan and Prof. Baobao Chang
- Research Interests
 - Building Generalizable and Inclusive AI Models across Tasks and Regions
 - * LLM Reasoning and Planning Generalist Language Agent Training
 - * LLM Alignment Enhancing Instruction Following and Cross-Task Generalization
 - * Cross-Region/Culture Generalization

Manuscript

- LLMs as General-Purpose Simulators For Agent Training
 - Yiming Wang*, Yuedong Cui*, **Da Yin***, Chenchen Ye, Zongyu Lin, Di Wu, Xueqing Wu, Kai-Wei Chang.
 - In Progress (Equal Contribution).
- Guiding Through Complexity: What Makes Good Supervision for Hard Reasoning Tasks?
 - Xuan He*, **Da Yin***, Nanyun Peng.
 - In Submission (Equal Contribution).
- Q* Agent: Optimizing Language Agents with Q-Guided Exploration
 - Zongyu Lin*, Yao Tang*, **Da Yin***, Stuart X. Yao, Ziniu Hu, Yizhou Sun, Kai-Wei Chang.
 - **In Submission** (Equal Contribution).
- OfficeBench: Benchmarking Language Agents across Multiple Applications for Office Automation
 - Zilong Wang, Yuedong Cui, Li Zhong, Zimin Zhang, **Da Yin**, Bill Yuchen Lin, Jingbo Shang.
 - Arxiv Preprint. [Paper] [Code]

Publication

LLM Reasoning and Planning

- Agent Lumos: Unified and Modular Training for Open-Source Language Agents
 - Da Yin, Faeze Brahman, Abhilasha Ravichander, Khyathi Chandu, Kai-Wei Chang, Yejin Choi, Bill Yuchen Lin.

- ACL 2024. [Paper] [Code] (440+ Github Stars) [Project Page]
- Trial and Error: Exploration-Based Trajectory Optimization for LLM Agents
 - Yifan Song, **Da Yin**, Xiang Yue, Jie Huang, Sujian Li, Bill Yuchen Lin.
 - ACL 2024. [Paper] [Code]
- The Magic of IF: Investigating Causal Reasoning Abilities in Large Language Models of Code
 - Xiao Liu, **Da Yin**, Chen Zhang, Yansong Feng and Dongyan Zhao.
 - ACL 2023 Findings. [Paper] [Code]
- Things not Written in Text: Exploring Spatial Commonsense from Visual Signals
 - Xiao Liu, **Da Yin**, Yansong Feng, Dongyan Zhao.
 - ACL 2022. [Paper] [Code]
- A Survey of Knowledge-Intensive NLP with Pre-Trained Language Models
 - Da Yin, Li Dong, Hao Cheng, Xiaodong Liu, Kai-Wei Chang, Furu Wei, Jianfeng Gao.
 - Presented at Spa-NLP @ ACL 2022. [Paper]
- Everything Has a Cause: Leveraging Causal Inference in Legal Text Analysis
 - Xiao Liu*, **Da Yin***, Yansong Feng, Yuting Wu, Dongyan Zhao.
 - NAACL 2021 (Equal Contribution). [Paper] [Code] (Oral)

LLM Alignment

- SafeWorld: Geo-Diverse Safety Alignment
 - Da Yin*, Haoyi Qiu*, Kung-Hsiang Huang, Kai-Wei Chang, Nanyun Peng.
 - **NeurIPS 2024**. (Equal Contribution)
- Dynosaur: A Dynamic Growth Paradigm for Instruction-Tuning Data Curation
 - Da Yin*, Xiao Liu*, Fan Yin*, Ming Zhong*, Hritik Bansal, Jiawei Han, Kai-Wei Chang.
 - EMNLP 2023. (Equal Contribution) [Paper] [Code] [Project Page]
- Towards a Unified Multi-Dimensional Evaluator for Text Generation
 - Ming Zhong, Yang Liu, **Da Yin**, Yuning Mao, Yizhu Jiao, Pengfei Liu, Chenguang Zhu, Heng Ji, Jiawei Han.
 - EMNLP 2022. [Paper] [Code] (Oral, 175/4100≈4.3%)
- QMSum: A New Benchmark for Query-based Multi-domain Meeting Summarization
 - Ming Zhong*, Da Yin*, Tao Yu, Ahmad Zaidi, Murori Mutuma, Rahul Jha, Ahmed Hassan Awadallah, Asli Celikyilmaz, Yang Liu, Xipeng Qiu, Dragomir Radev.
 - NAACL 2021 (Equal Contribution). [Paper] [Code] (Oral)

Cross-Region/Culture Generalization

- GIVL: On Improving Geographical Inclusivity of Vision-and-Language Models with Pre-Training Methods
 - Da Yin, Feng Gao, Govind Thattai, Michael Johnston, Kai-Wei Chang.
 - CVPR 2023. [Paper]
- GeoMLAMA: Geo-Diverse Commonsense Probing on Multilingual Pre-Trained Language Models
 - Da Yin, Hritik Bansal, Masoud Monajatipoor, Liunian Harold Li, Kai-Wei Chang.
 - EMNLP 2022. [Paper] [Code] (Oral, 175/4100≈4.3%)
- How well can Text-to-Image Generative Models understand Ethical Natural Language Interventions?
 - Hritik Bansal*, **Da Yin***, Masoud Monajatipoor, Kai-Wei Chang.
 - EMNLP 2022. (Equal Contribution) [Paper] [Code] (Oral, 175/4100≈4.3%)
- Broaden the Vision: Geo-Diverse Visual Commonsense Reasoning
 - Da Yin, Liunian Harold Li, Ziniu Hu, Nanyun Peng, Kai-Wei Chang.
 - EMNLP 2021. [Paper] [Code] [Project Page] [Video] (Oral, 315/3600≈8.8%)

Other Works

- Bridging the Data Provenance Gap Across Text, Speech, and Video
 - Shayne Longpre, ..., Da Yin (Top/Essential Contributor), ..., Sara Hooker, Jad Kabbara (43 authors).
 - In Submission.
- Consent in Crisis: The Rapid Decline of the AI Data Commons
 - Shayne Longpre, Robert Mahari, Ariel Lee, ..., Da Yin*, ..., Sara Hooker, Jad Kabbara, Sandy Pentland (49 authors).
 - NeurIPS 2024 Dataset and Benchmark Track.
- KPEval: Towards Fine-Grained Semantic-Based Keyphrase Evaluation
 - Di Wu, **Da Yin**, Kai-Wei Chang.
 - ACL 2024 Findings. [Paper]
- LEAF: Linguistically Enhanced Event Temporal Relation Framework
 - Stanley Lim, **Da Yin**, Nanyun Peng.
 - Pan-DL @ EMNLP 2023. [Paper] (Best Paper Award, Oral)
- SentiBERT: A Transferable Transformer-based Architecture for Compositional Sentiment Semantics
 - Da Yin, Tao Meng, Kai-Wei Chang.
 - ACL 2020. [Paper] [Code]
- What Does BERT with Vision Look At?
 - Liunian Harold Li, Mark Yatskar, **Da Yin**, Cho-Jui Hsieh, Kai-Wei Chang.
 - ACL 2020. [Paper] [Code]
- VisualBERT: A Simple and Performant Baseline for Vision and Language

- Liunian Harold Li, Mark Yatskar, **Da Yin**, Cho-Jui Hsieh, Kai-Wei Chang.
- Arxiv Preprint. [Paper] [Code] (520+ Github Stars)
- Interactive Multi-Grained Joint Model for Targeted Sentiment Analysis
 - Da Yin*, Xiao Liu*, Xiaojun Wan.
 - CIKM 2019 (Equal Contribution). [Paper] (Oral)
- A Soft Label Strategy for Target-Level Sentiment Classification
 - Da Yin, Xiao Liu, Xiuyu Wu, Baobao Chang.
 - WASSA @ NAACL 2019. [Paper] (Oral)

Internship

- Jun 2024 Present Microsoft Research, Active Learning for Language Agent Learning. Mentors: Hao Cheng, Baolin Peng, Jianfeng Gao.
- Jun 2023 Present AI2 Mosaic Team, Training Language Agents with Unified Formats, Modular Design, and Open-Source LLMs.
 Mentors: Bill Yuchen Lin, Faeze Brahman, Abhilasha Ravichander, Khyathi Chandu, Yejin Choi.
- June 2022 Dec 2022 Amazon Alexa AI Natural Understanding, GIVL: On Improving Geographical Inclusivity of Vision-and-Language Models with Pre-Training Methods.

 Mentors: Feng Gao, Govind Thattai, Michael Johnston, Kai-Wei Chang.
- June 2021 Sep 2021 Microsoft Research & Microsoft Research Asia, Survey on Knowledge-Enhanced Methods on Knowledge-Intensive NLP Tasks.

 Mentors: Xiaodong Liu, Li Dong, Furu Wei, Jianfeng Gao.
- May 2020 Nov 2020 Yale & Microsoft Research, Query-based Meeting Summarization. Mentors: Tao Yu, Rahul Jha, Ahmed Hassan Awadallah, Asli Celikyilmaz, Dragomir Radev.

Selected Awards

- Mar 2024 Cohere AI Research Grant
- Nov 2023 Best Paper Award of Pan-DL Workshop @ EMNLP 2023
- Sep 2022 Amazon PhD Fellowship
- Sep 2020 UCLA Graduate Division Fellowship
- Sep 2019 UCLA CSST Honorable Mention of Best Presentation
- Apr 2019 UCLA CSST Scholarship

Teaching & Talks

- Fall 2024, Language Agent Training, USC.
- Winter 2024, Building Generalizable and Inclusive Language Processing Models Across Tasks and User Groups, Nanjing University.
- Winter 2023, Building Generalizable and Inclusive Language Processing Models Across Tasks and User Groups, CS 201, Computer Science Seminar, UCLA.
- Spring 2022, CS 31, Introduction to Computer Science, UCLA.
- Fall 2021, Winter 2022, CS M146, Introduction to Machine Learning, UCLA.

Service

- ACL, EMNLP 2024, Action Editor (Area Chair).
- The 4th Southern California Natural Language Symposium (SoCal NLP), Publicity chair.
- The 1st Multilingual Multimodal Learning Workshop @ ACL 2022, Co-organizer
- {COLM, ICLR, ICML, JAIR, ACL, LLMAgent Workshop @ ICLR, ClimateNLP @ ACL} 2024, {ACL, EMNLP, NeurIPS, Instruction Workshop @ NeurIPS} 2023, {ACL, EMNLP, ACL SRW, ARR} 2022, {ACL, EMNLP} 2021, NAACL SRW 2021 Program Committee
- EMNLP 2021 Voluteer