

Ziyi Yang

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Education

Ph.D. Stanford University	2016 – 2021
M.S. Stanford University	2016 – 2018
B.S. Nanjing University	2012 – 2016

Experience

Databricks MosaicML , Staff Research Scientist	Bellevue, WA Jan 2025 – Now
• Vision LLM. Tech lead for developing vision LLM for document parsing: SFT, RL, data curation, evaluation.	
Microsoft GenAI , Principal Researcher	Redmond, WA Sep 2023 – Dec 2024
• LLM Post-Training. Lead of post-training for Phi model family, including Phi-3 series and Phi-4. Focus on SFT, preference alignment, and synthetic LLM data generation.	
Microsoft Research , Senior Researcher	Redmond, WA Jul 2021 – Sep 2023
• NLP & Multimodal Research. Built language- vision-speech multimodal model i-Code. First author works published on AAAI 22', NAACL 23', and EMNLP 24'.	
Google DeepMind , Research Intern	Mountain View, CA June-Dec 2020
• Multilingual Sentence Embeddings. Trained a novel transformer-based sentence encoder for over 110 languages. Two first-author papers accepted at EMNLP 21'.	
Microsoft Research , Research Intern	Bellevue, WA June-Sept 2019
• Unsupervised Text Summarization. Designed a transformer-based unsupervised summarization system with state-of-the-art performance. One first-author paper accepted to EMNLP 20'.	
Microsoft Research , Research Intern	Redmond, WA June-Sept 2018
• Non-parameterized Sentence Embeddings. Achieved state-of-the-art performances of non-parameterized methods. One first-author paper accepted to EMNLP 19' as oral presentation.	

Selected Publications

- **Phi-4-mini technical report: Compact yet powerful multimodal language models via mixture-of-loras**
Lead for post-training.
- **Phi-3 technical report: A highly capable language model locally on your phone.**
Lead for post-training.
- **Self-exploring language models: Active preference elicitation for online alignment**

Shenao Zhang, Donghan Yu, Hiteshi Sharma, Han Zhong, Zhihan Liu, Ziyi Yang, Shuohang Wang, Hany Hassan Awadalla, Zhaoran Wang. **TMLR 2025**

- **Phi-3 safety post-training: Aligning language models with a break-fix cycle**

Lead for post-training.

- **i-Code Studio: A Configurable and Composable Framework for Integrative AI.**

Yuwei Fang, Mahmoud Khademi, Chenguang Zhu, Ziyi Yang, et al. **EMNLP Demo 2024**

- **i-Code V2: An Autoregressive Generation Framework over Vision, Language, and Speech Data.**

Ziyi Yang, Mahmoud Khademi, Yichong Xu, Reid Pryzant, Yuwei Fang, Chenguang Zhu, et al. **NAACL Findings 2024**

- **Soft Convex Quantization: Revisiting Vector Quantization with Convex Optimization**

Tanmay Gautam, Reid Pryzant, Ziyi Yang, Chenguang Zhu, Somayeh Sojoudi. **L4DC 2024**

- **CoDi-2: In-Context Interleaved and Interactive Any-to-Any Generation.**

Zineng Tang, Ziyi Yang* (intern mentor), Mahmoud Khademi, Yang Liu, Chenguang Zhu, Mohit Bansal*. **CVPR 2024, Spotlight**

- **Any-to-any generation via composable diffusion.**

Zineng Tang, Ziyi Yang* (intern mentor), Chenguang Zhu, Michael Zeng, Mohit Bansal*. **NeurIPS 2023**

- **Unifying Vision, Text, and Layout for Universal Document Processing.**

Zineng Tang, Ziyi Yang* (intern mentor), Guoxin Wang, Yuwei Fang, Yang Liu, Chenguang Zhu, Michael Zeng, Cha Zhang, Mohit Bansal*. **CVPR 2023, Spotlight**

- **Global Selection of Contrastive Batches via Optimization on Sample Permutations.**

Vin Sachidananda, Ziyi Yang, Chenguang Zhu. **ICML 2023**

- **i-Code: An integrative and composable multimodal learning framework.**

Ziyi Yang, Yuwei Fang, Chenguang Zhu, Reid Pryzant, Dongdong Chen, Yu Shi, Yichong Xu, Yao Qian, et al. **AAAI 2023**

- **Language models with image descriptors are strong few-shot video-language learners.**

Zhenhailong Wang, Manling Li, Ruochen Xu, Luwei Zhou, Jie Lei, Xudong Lin, Shuohang Wang, Ziyi Yang, Chenguang Zhu, Derek Hoiem, Shih-Fu Chang, Mohit Bansal, Heng Ji. **NeurIPS 2022**

- **Empowering Language Models with Knowledge Graph Reasoning for Open-Domain Question Answering.**

Ziniu Hu, Yichong Xu, Wenhao Yu, Shuohang Wang, Ziyi Yang, Chenguang Zhu, Kai-Wei Chang, Yizhou Sun. **EMNLP 2022**

- **Automatic Rule Induction for Efficient Semi-Supervised Learning.**

Reid Pryzant, Ziyi Yang, Yichong Xu, Chenguang Zhu, Michael Zeng. **EMNLP Findings 2022**

- **UNISUMM and SUMMZOO: Unified Model and Diverse Benchmark for Few-Shot Summarization.**

Yulong Chen, Yang Liu, Ruochen Xu, Ziyi Yang, Chenguang Zhu, Michael Zeng, Yue Zhang. **ACL 2023**

- **Anomaly Detection with Domain Adaptation.**

Ziyi Yang, Iman Soltani Bozchalooi, Eric Darve. **CVPR 2023 workshop**

- **Make lead bias in your favor: A simple and effective method for news summarization.**

Chenguang Zhu, Ziyi Yang, Robert Gmyr, Michael Zeng, Xuedong Huang. *SIGIR 2021*

- **Universal Sentence Representations Learning with Conditional Masked Language Model**

Ziyi Yang, Yinfei Yang, Daniel Cer, Jax Law, Eric Darve. *EMNLP 2021*

- **A Simple and Effective Method To Eliminate the Self Language Bias in Multilingual Representations**

Ziyi Yang, Yinfei Yang, Daniel Cer, Eric Darve. *EMNLP 2021*

- **Memory Augmented Generative Adversarial Networks for Anomaly Detection**

Ziyi Yang, Iman Soltani Bozchalooi, Eric Darve. *IEEE Transactions on Neural Networks and Learning Systems*

- **Filtered Inner Product Projection for Multilingual Embedding Alignment.**

Vin Sachidananda, Ziyi Yang, Chenguang Zhu. *ICLR 2021*

- **Multi-Constitutive Neural Network for Large Deformation Poromechanics Problem.**

Qi Zhang*, Yilin Chen*, **Ziyi Yang***, Eric Darve. *NeurIPS ML4PS Workshop 2020*

- **TED: A pretrained unsupervised summarization model with theme modeling and denoising.**

Ziyi Yang*, Chenguang Zhu*, Michael Zeng, Xuedong Huang, Eric Darve. *EMNLP Findings 2020*

- **Regularized Cycle Consistent Generative Adversarial Network for Anomaly Detection.**

Ziyi Yang, Iman Soltani Bozchalooi, Eric Darve. *ECAI 2020*

- **Non-parameterized Sentence Embedding via Orthogonal Basis.**

Ziyi Yang, Chenguang Zhu, Weizhu Chen. *EMNLP 2019, Oral*

- **Embedding Imputation with Grounded Language Information.**

Ziyi Yang, Chenguang Zhu, Vin Sachidananda, Eric Darve. *ACL 2019*