Maitreya Patel

Curriculum Vitae

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Education

- 2023-present **PhD, Computer Science**, *SCAI, Arizona State University*. Advisors: Yezhou Yang, Chitta Baral
 - CGPA: 4.00/4.00
- 2021–2022 : Masters, Computer Science, SCAI, Arizona State University. Thesis: Counterfactual Reasoning for learning implicit physical properties Advisor: Yezhou Yang, Chitta Baral
 - ${\sf CGPA}:\ 4.00/4.00$
- 2016–2020 : **Bachelor of Technology, ICT**, *Dhirubhai Ambani Institute of Information and Communication Technology*. Advisor: Hemant Patil
 - CGPA : 7.54/10

Selected Publications

My research has been published at top-tier AI/ML conference venues: 2 at EMNLP (h5-index: 176), 1 at ICASSP (h5-index: 123), 3 at EUSIPCO (h5-index: 54), etc..

Scholar: scholar.google.com/citations?user=z-mlKgAAAAJ&hl=en.

Latest arXiv:

- 2023 **Maitreya Patel**, Tejas Gokhale, Chitta Baral, and Yezhou Yang. Conceptbed: Evaluating concept learning abilities of text-to-image diffusion models. *arXiv preprint arXiv:2306.04695*, 2023.
- 2023 Changhoon Kim*, Kyle Min*, Maitreya Patel, Sheng Cheng, and Yezhou Yang. Wouaf: Weight modulation for user attribution and fingerprinting in text-to-image diffusion models. arXiv preprint arXiv:2306.04744, 2023.

In Conference Proceedings

- 2022 **Maitreya Patel**, Tejas Gokhale, Chitta Baral, and Yezhou Yang. CRIPP-VQA: Counterfactual reasoning about implicit physical properties via video question answering. In *Proceedings of the 2022 Conference on Empirical Methods in Natural Language Processing (EMNLP)*, 2022.
- 2022 Yizhong Wang, Swaroop Mishra, Pegah Alipoormolabashi, Yeganeh Kordi, Amirreza Mirzaei, Anjana Arunkumar, Arjun Ashok, Arut Selvan Dhanasekaran, Atharva Naik, David Stap, et al. Benchmarking generalization via in-context instructions on 1,600+ language tasks. In Proceedings of the 2022 Conference on Empirical Methods in Natural Language Processing (EMNLP), 2022.
- 2020 **Maitreya Patel**, Mirali Purohit, Jui Shah, and Hemant A Patil. CinC-GAN for effective f0 prediction for whisper-to-normal speech conversion. In *28th European Signal Processing Conference (EUSIPCO)*. IEEE, 2020.

- 2020 Mirali Purohit, Mihir Parmar, Maitreya Patel, Harshit Malaviya, and Hemant A Patil. Weak speech supervision: A case study of dysarthria severity classification. In 28th European Signal Processing Conference (EUSIPCO). IEEE, 2020.
- 2020 Harshit Malaviya, Jui Shah, Maitreya Patel, Jalansh Munshi, and Hemant A Patil. MSpeC-Net: Multi-domain speech conversion network. In 45th IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), pages 7764–7768. IEEE, 2020.
- 2019 Maitreya Patel, Mihir Parmar, Savan Doshi, Nirmesh J Shah, and Hemant A Patil. Novel adaptive generative adversarial network for voice conversion. In *11th Asia-Pacific Signal and Information Processing Association Annual Summit and Conference (APSIPA ASC)*, pages 1273–1281. IEEE, 2019.
- 2019 Mihir Parmar, Savan Doshi, Nirmesh J Shah, **Maitreya Patel**, and Hemant A Patil. Effectiveness of cross-domain architectures for whisper-to-normal speech conversion. In *27th European Signal Processing Conference (EUSIPCO)*. IEEE, 2019.

Experience

Research Assistant, ASU

Fall'22 – *Robust multi-modal Representation Learning*. Present Advisor : Yezhou Yang

AI/ML Intern, LatentAI

Summer'22 Semantic segmentation model compression for edge devices. Advisor : Jan Ernst

Research Assistant, ASU

May'21 – Unsupervised aspect based sentiment analysis. May'22 Advisor : Hasan Davulcu

Data Science Associates, ZS Associates

- Jan'20 Transformers for rare-disease detection from tabular data.
 - Dec'20 Advisor : Prakash Prakash

Academic Achievements & Recognitions

- 2022 Received Graduate College Travel Award FY23 Q2 for EMNLP from ASU.
- 2021 Simon Fraser University MSCS Research scholarship of \$42,000.00 (Declined).
- 2020 Deans' Award for Excellence in Research & Innovation in class of 2020 undergraduate batch.
- 2019 Ranked under top 50 out of 7000 applicants in ML-challenge organized by ZS Associates in India.

Invited Talks

Feb'23 Recent Advances in Generative Models. DA-IICT

July'22	Importance of Counterfactual Reasoning towards Human Level Intelligence (HLAI). LatentAl
May'20	MSpeC-Net: Multi-Domain Speech Conversion Network. ICASSP
Aug'19	Towards eXplainable AI (XAI) to understand what CNNs are learning. DAIICT
Nov'19	How to deploy any deep learning system?. DAIICT
	Teaching Experience
Fall'22 :	Student Project Mentor, CSE576: Natural Language Processing, ASU.
Fall'22 :	Teaching Assistant, CSE408: Multimedia Information Systems, ASU.
Summer'19 :	Teaching Assistant , IEEE Summer School on Introduction to Machine Learning, DAIICT.
	Community Services
Reviewer:	ICML, NeurIPS, EMNLP.
	CVPR O-DRUM, SoCalNLP NLP Symposium.
Volunteer:	NeurIPS, 2022, New Orleans.
Convener	Research Club, 2018-2019, DA-IICT.
	Referees

Yezhou Yang Associate Professor Arizona State University ⊠ yz.yang@asu.edu Chitta Baral Professor Arizona State University ⊠ chitta@asu.edu