

# Maitreya Patel

## Curriculum Vitae

Arizona State University  
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📄 [Online Resume](#)  
🐙 [Github](#) [in](#) [Linkedin](#)

### 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  
CGPA : 4.00/4.00

### Experience

#### Research Intern, Adobe

- Summer'25 ***Fast & scalable low NFE image generative models.***  
Advisors : Hareesh Ravi, Ajinkya Kale

#### Research Intern, SonyAI

- Spring'25 ***TokenVibe: Scaling 1D Image Tokenization and Generation Across Dynamic Resolutions.***  
Advisors : Jingtao Li, Weiming Zhuang, Lingjuan Lyu

#### Research Intern, Adobe

- Summer'24 ***3D-Aware Object-centric Controls for Diffusion Models.***  
Advisors : Hareesh Ravi, Pranav Aggarwal, Yiru Shen, Ajinkya Kale

#### Research Assistant, ASU

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

### Selected Publications

My research has been published at top-tier AI/ML conference venues:  
CVPR, NeurIPS, ICLR, TMLR, AAAI, EMNLP, etc..

**Scholar:** [scholar.google.com/citations?user=z-mIKgAAAAJ&hl=en](https://scholar.google.com/citations?user=z-mIKgAAAAJ&hl=en).

#### Latest arXiv / Under review:

- 2025 **Maitreya Patel**, Song Wen, Dimitris Metaxas, and Yezhou Yang. Steering Rectified Flow Models in the Vector Field for Controlled Image Generation. *Under Review + Oral at ICLR DELTA Workshop (top-5%), 2025.*
- 2025 **Maitreya Patel**, Lingtao Li, Weiming Zhuang, and Lingjuan Lv. TokenVibe: Scaling 1D Image Tokenization and Generation Across Dynamic Resolutions. *Under Review, 2025.*

- 2025 Smaeep Vani, Shreyas Jena, **Maitreya Patel\***, Somak Aditka\*, Chitta Baral\*, and Yezhou Yang\*. TimeWar: Harnessing Synthetic Preference Data for Enhancing Temporal Understanding of Video-LLMs. *Under Review*, 2025.
- 2025 Bimsara Pathiraja\*, **Maitreya Patel\***, Shivam Singh, Abhiram Kusumba, Yezhou Yang, and Chitta Baral. RefEdit: Improving Instruction-based Image Editing Model for Referring Expression. *Under Review*, 2025.

### Selected Publications

- 2025 Nilay Yilmaz, **Maitreya Patel**, Yiran Luo, Tejas Gokhale, Chitta Baral, Suren Jayasuriya, and Yezhou Yang. Voila: Evaluation of MLLMs For Perceptual Understanding and Analogical Reasoning. *ICLR (Main Conference)*, 2025.
- 2024 **Maitreya Patel**, Abhiram Kusumba, Sheng Cheng, Changhoon Kim, Tejas Gokhale, Chitta Baral, and Yezhou Yang. TripletCLIP: Improving Compositional Reasoning of CLIP via Vision-Language Negatives. *NeurIPS (Main Conference)*, 2024.
- 2024 **Maitreya Patel**, Changhoon Kim, Sheng Cheng, Chitta Baral, and Yezhou Yang. ECLIPSE: A Resource-Efficient Text-to-Image Prior for Image Generations. *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)*, 2024. **Media Coverages:** [AK \(akhaliq\)](#), [MarkTechPost](#), [Multiplatform.AI](#).
- 2024 **Maitreya Patel**, Sangmin Jung, Chitta Baral, and Yezhou Yang.  $\lambda$ -ECLIPSE: Multi-Concept Personalized Text-to-Image Diffusion Models by Leveraging CLIP Latent Space. *Transactions on Machine Learning Research (TMLR)*, 2024. **Media Coverages:** [AK \(akhaliq\)](#).
- 2024 **Maitreya Patel**, Tejas Gokhale, Chitta Baral, and Yezhou Yang. ConceptBed: Evaluating Concept Learning Abilities of Text-to-Image Diffusion Models. In *Proceedings of the AAAI Conference on Artificial Intelligence*, 2024.
- 2024 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. *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)*, 2024. **Media Coverages:** [AK \(akhaliq\)](#).
- 2024 Sheng Cheng, **Maitreya Patel**, and Yezhou Yang. Precision or Recall? An Analysis of Image Captions for Training Text-to-Image Generation Model. *EMNLP (findings)*, 2024.
- 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.

### Student Mentees

**Bimsara Pathiraja**, PhD Student, (see publication RefEdit).

**Sangmin Jung**, PhD Student, (see publication  $\lambda$ -ECLIPSE).

**Nilay Yilaz**, PhD Student, (see publication Voila).

**Abhiram Kusumba**, MS Student, (see publication TripletCLIP).

**Sameep Vani**, MS Student, (see publication TimeWar).

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## Invited Talks

- Fall'24 **The role of representation learning in the era of large generative models.**  
Seminar on Frontier Topics in GenAI (September)
- Spring'24 **Towards Robust Text-to-Image Generative Models in Resource-Efficient Manner.**  
RGMV - Tutorial @ WACV'24 (January); Yonsei University (February); Voxel51 Meetup (April)
- Nov'23 **Survey and Trend in Vision-Language.**  
ASU
- Feb'23 **Recent Advances in Generative Models.**  
DA-IICT
- July'22 **Importance of Counterfactual Reasoning towards Human Level Intelligence (HLAI).**  
LatentAI

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## Academic Achievements & Recognitions

- 2025 **Oral presentation (top 6%)** at ICLR DELTA Workshop (withdrawn).
- 2024-25 **SCAI Graduate PhD Fellowship.**
- 2022-25 Received (\$2850+) **Graduate College Travel Awards** for NeurIPS, ICLR, and AAAI 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.

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## Teaching Experience

- Fall'24 : **Project Lead – Vermilion**, CSE598: *Frontier topics in GenAI*, ASU.
- Fall'23 : **Student Project Mentor**, CSE576: *Natural Language Processing*, ASU.
- Fall'22 : **Student Project Mentor**, CSE576: *Natural Language Processing*, ASU.
- Fall'22 : **Teaching Assistant**, CSE408: *Multimedia Information Systems*, ASU.

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## Community Services

- Organizer: **Workshop on RBFM @ NeurIPS'24.**  
**Frontier Topics in Generative AI @ ASU.**
- Reviewer: **ECCV, ICML, NeurIPS, EMNLP, ICRA, ICLR, AAAI.**
- Convener: **Research Club**, 2018-2019, DA-IICT.

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## Referees

**Yezhou Yang**  
Associate Professor  
Arizona State University  
✉ yz.yang@asu.edu

**Chitta Baral**  
Professor  
Arizona State University  
✉ chitta@asu.edu