

TEJAS GOKHALE

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RESEARCH INTERESTS

Vision and Language

Robustness & Generalization

Adversarial Learning

EDUCATION

Ph.D.	Computer Engineering	Arizona State University	2018-present
M.S.	Electrical and Computer Engineering	Carnegie Mellon University	2017
B.E.(Honors)	Electronics and Instrumentation	BITS Pilani, India	2015

PUBLICATIONS

[click here for recent updates \(SEMANTIC SCHOLAR\)](#)

Conference Proceedings

1. Pratyay Banerjee, **Tejas Gokhale**, Yezhou Yang, and Chitta Baral. Weakly supervised relative spatial reasoning for visual question answering. *Proceedings of the IEEE/CVF International Conference on Computer Vision*, 2021. (to appear) **ICCV 2021**
2. Pratyay Banerjee, **Tejas Gokhale**, Yezhou Yang, and Chitta Baral. Weaqa: Weak supervision via captions for visual question answering. *ACL Findings*, 2021. <https://arxiv.org/abs/2012.02356> **ACL Findings 2021**
3. Pratyay Banerjee, **Tejas Gokhale**, and Chitta Baral. Self-supervised test-time learning for reading comprehension. *Annual Conference of the North American Chapter of the Association for Computational Linguistics*, 2021. <https://arxiv.org/abs/2103.11263> **NAACL 2021**
4. **Tejas Gokhale**, Rushil Anirudh, Bhavya Kailkhura, Jayaraman J. Thiagarajan, Chitta Baral, and Yezhou Yang. Attribute-guided adversarial training for robustness to natural perturbations. *AAAI Conference on Artificial Intelligence*, 2021. <https://arxiv.org/abs/2012.01806> **AAAI 2021**
5. **Tejas Gokhale**, Pratyay Banerjee, Chitta Baral, and Yezhou Yang. Mutant: A training paradigm for out-of-distribution generalization in visual question answering. *Empirical Methods in Natural Language Processing*, 2020. <https://arxiv.org/abs/2009.08566> **EMNLP 2020**
6. Zhiyuan Fang, **Tejas Gokhale**, Pratyay Banerjee, Chitta Baral, and Yezhou Yang. Video2commonsense: Generating commonsense descriptions to enrich video captioning. *arXiv arXiv:2003.05162*, 2020. <https://arxiv.org/abs/2003.05162> **EMNLP 2020**
7. **Tejas Gokhale**, Pratyay Banerjee, Chitta Baral, and Yezhou Yang. Vqa-lol: Visual question answering under the lens of logic. *European Conference on Computer Vision*, 2020. <https://arxiv.org/abs/2002.08325> **ECCV 2020**

Workshop Papers / Pre-Prints

1. Kuldeep Kulkarni, **Tejas Gokhale**, Rajhans Singh, Pavan Turaga, and Aswin Sankaranarayanan. Halluci-net: Scene completion by exploiting object co-occurrence relationships. *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition Workshops*, 2021. <https://arxiv.org/abs/2004.08614> **CVPR AICC 2021**
2. **Tejas Gokhale**, Shailaja Sampat, Zhiyuan Fang, Yezhou Yang, and Chitta Baral. Cooking with blocks: A recipe for visual reasoning on image-pairs. In *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition Workshops*, pages 5–8, 2019. **CVPR VMC 2019**

EXPERIENCE

- Lawrence Livermore National Labs, Livermore CA** May 2021 - Aug 2021
Research Scholar (Mentor: Rushil Anirudh)
- *Keywords:* single-source domain generalization, adversarial training.
- Lawrence Livermore National Labs, Livermore CA** May 2020 - Aug 2020
Research Scholar (Mentor: Rushil Anirudh)
- *Keywords:* Robustness to Natural Perturbations, Semantic Shifts, Geometric Transformations.
- Snap Inc., Seattle** May 2018 - Aug 2018
Research Intern (Mentors: Guru Krishnan & Shree Nayar)
- *Keywords:* Audio Trigger/Keyword Spotting, small neural networks for On-Device Inference
- Carnegie Mellon University** Jan 2017 - May 2018
Graduate Student Researcher (Advisor: Aswin Sankaranarayanan)
- semantic hashing, image super-resolution, image synthesis from partial inputs.

TEACHING/MENTORING

- Teaching Associate, ASU,**
CSE310 (Data Structures & Algorithms),
CSE408 (Multimedia Info Systems),
CSE110 (Intro to Programming)
- Masters Thesis Mentor (at ASU),**
Abhishek Chaudhary, AY 2020-21
Huiliang Shao, AY 2021-22
- Capstone Mentor,** mentored 5 BS students in projects on vision&language Fall 2019, Spring 2020
- Project Mentor,** CSE576 - Natural Language Processing, ASU Fall 2018
- Instructor,** CTE- Advanced Image Processing, BITS Pilani Goa Campus Spring 2015

OTHER TALKS & PRESENTATIONS

- Sep'21, (*Invited*) "Robust Visual Understanding", ASU ML Club
Aug'19, "Vision Beyond Pixels", IJCAI Doctoral Consortium, IJCAI 2019, Macao
Jul'19, "Reasoning about Objects and Actions via Block-Play", Telluride 2019
Apr'18, (*Invited*) "Deep Learning Methods in Imaging and Computer Vision", BITS Goa

SERVICE / LEADERSHIP

- Reviewer (Conferences):** ICLR 2022, AACL 2022, 2021; *ACL 2022, EMNLP 2021, NAACL 2021; WACV 2022; ICRA 2021, 2020, 2019;
- Reviewer (Journals):** IEEE Robotics and Automation Letters, Springer MVAP
- Co-Organizer,** 2021 Frontiers of V&L Seminar Series, [Website](#), ASU
- Founder,** Summer Vision Reading Group, [Website](#), multi-uni
- Volunteer,** 2019 Southwest Robotics Symposium, Tempe AZ
- Volunteer,** International Conference on Machine Learning 2020, Virtual
- Advisor,** ASU Machine Learning Club, ASU
- Mentor,** Graduate Student Mentorship Program, ASU
- Student Mentor,** Peer Mentorship Programme, BITS Pilani

AWARDS & HONORS

CIDSE Doctoral Fellowship (CIDSE, ASU),	Spring 2021, 2020
Engineering Graduate Fellowship, (ASU Engineering),	Spring 2020
Graduate College Travel Award, (ASU),	for ICCV 2021, EMNLP 2020, ECCV 2020
IJCAI Doctoral Consortium Travel Award,	for IJCAI 2019
Inducted, IEEE Eta Kappa Nu, Sigma Chapter (CMU),	Jan 2017
National Talent Scholarship (Govt. of India),	2007-2015

REFERENCES

Yezhou Yang ,	Asst. Prof.,	Arizona State University	yz.yang@asu.edu
Chitta Baral	Professor	Arizona State University	chitta@asu.edu
Rushil Anirudh ,	Computer Scientist,	Lawrence Livermore National Labs	anirudh1@llnl.gov