

TEJAS GOKHALE

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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

[GOOGLE SCHOLAR](#)

Conference Proceedings

Improving Biomedical Information Retrieval with Neural Retrievers

M. Luo, A. Mitra, **T. Gokhale**, C. Baral

[to appear](#)

AAAI 2022

Weakly Supervised Relative Spatial Reasoning for Visual Question Answering

P. Banerjee, **T. Gokhale**, Y. Yang, C. Baral

<https://arxiv.org/abs/2109.01934>

ICCV 2021

WeaQA: Weak Supervision via Captions for Visual Question Answering

P. Banerjee, **T. Gokhale**, Y. Yang, C. Baral

<https://arxiv.org/abs/2012.02356>

ACL Findings 2021

Self-Supervised Test-Time Learning for Reading Comprehension

P. Banerjee, **T. Gokhale**, C. Baral

<https://arxiv.org/abs/2103.11263>

NAACL 2021

Attribute-Guided Adversarial Training for Robustness to Natural Perturbations

T. Gokhale, R. Anirudh, B. Kailkhura, J. Thiagarajan, C. Baral, Y. Yang

<https://arxiv.org/abs/2012.01806>

AAAI 2021

Mutant: A Training Paradigm for Out-of-Distribution Generalization in Visual Question Answering

T. Gokhale, P. Banerjee, C. Baral, Y. Yang

<https://arxiv.org/abs/2009.08566>

EMNLP 2021

Video2commonsense: Generating commonsense descriptions to enrich video captioning

Z. Fang, **T. Gokhale**, P. Banerjee, C. Baral, Y. Yang

<https://arxiv.org/abs/2003.05162>

EMNLP 2021

VQA-LOL: Visual question answering under the lens of logic

T. Gokhale, P. Banerjee, C. Baral, Y. Yang

<https://arxiv.org/abs/2002.08325>

ECCV 2020

Workshop Papers / Pre-Prints

Semantically Distributed Robust Optimization for Vision-and-Language Inference

T. Gokhale, A. Chaudhary, P. Banerjee, C. Baral, Y. Yang

<https://arxiv.org/abs/2110.07165>

under review

Halluci-Net: Scene Completion by Exploiting Object Co-occurrence Relationships

K. Kulkarni, **T. Gokhale**, R. Singh, P. Turaga, A. Sankaranarayanan

<https://arxiv.org/abs/2004.08614>

AI for Content Creation @ CVPR 2021

Cooking With Blocks: A Recipe for Visual Reasoning on Image-Pairs

T. Gokhale, S. Sampat, Z. Fang, Y. Yang, C. Baral

Long version: <https://arxiv.org/abs/1905.12042>

Vision Meets Cognition @ CVPR 2021

Proposal Writing

An Active Approach for Data Engineering to Improve Vision-Language Tasks

PI: Yezhou Yang, Co-PI: Chitta Baral

Accepted and Funded by NSF

(Conceptualized and wrote 2 of 3 research plans)

EXPERIENCE

Lawrence Livermore National Labs, Livermore CA

Research Scholar

May 2021 - Aug 2021

(Mentor: Rushil Anirudh)

- *Keywords:* single-source domain generalization, adversarial training.

Lawrence Livermore National Labs, Livermore CA

Research Scholar

May 2020 - Aug 2020

(Mentor: Rushil Anirudh)

- *Keywords:* Robustness to Natural Perturbations, Semantic Shifts, Geometric Transformations.

Snap Inc., Seattle

Research Intern

May 2018 - Aug 2018

(Mentors: Guru Krishnan & Shree Nayar)

- *Keywords:* Audio Trigger/Keyword Spotting, small neural networks for On-Device Inference

Carnegie Mellon University

Graduate Student Researcher

Jan 2017 - May 2018

(Advisor: Aswin Sankaranarayanan)

- semantic hashing, image super-resolution, image synthesis from partial inputs.

TEACHING/MENTORING

Teaching Associate, ASU,

CSE310 (Data Struct. & 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: ICLR 2022, AAAI 2022, 2021; *ACL 2022, EMNLP 2021, NAACL 2021; WACV 2022; ICRA 2021, 2020, 2019; 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-university initiative

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 Program

BITS Pilani

AWARDS

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	Assistant Professor,	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